TO: B.M. KELLY
FROM: J.D. WHITE

131

Attachment 1

Accumulation Time TAC 335.69

The following hazardous wastes are stored on-site in 55 gallon drums for less than 90 days prior to off-site disposal at an authorized hazardous waste management facility:

Description	TDWR Waste Code Number
Phosphorous acid	905030
Spent methyl ethyl ketone	913860
Organic Peroxide	916250

Exclusions 40 CFR 261.4 (a) (7) and TAC 335.41 (g) (2)

Spent sulfuric acid, TDWR Waste Code Number 900040, is generated from one of the manufacturing processes; it is treated to remove trace impurities (see Attachement 2) by the addition of sulfur dioxide. It is then stored after treatment in a 10,000 gallon tank, but not "accumulated speculatively", and sent for off-site recovery to produce virgin sulfuric acid.

TEXAS WATER COMMISSION

November 27, 1985

Mr. Bernard M. Kelly
Vice President, Manufacturing
Lucidol Division - Pennwalt Corp.
18000 Crosby Eastgate Road
Crosby, Texas 77532

Dear Mr. Kelly:

Re: Lucidol Division-Pennwalt Corp., Application No. 10648
Registration No. 30458 - Crosby, Texas Site

We have reviewed Part A - Facility Background Information for the above-referenced site and also the Affidavit of Exclusion which was recently submitted for the purpose of withdrawing the hazardous waste permit application from further consideration in accordance with the exclusion claimed.

Based on our review of Part A and the Affidavit of Exclusion, the application for a hazardous waste permit has been withdrawn. We are retaining certain portions of the Part A for incorporation into your solid waste registration file.

If I may be of further assistance, please do not hestitate to contact me at AC512/463-8173.

Sincerely,

Minor Brooks Hibbs, Chief
Permits Section
Hazardous and Solid Waste Division

RHA:bb
cc: TXD 043750512
TWC District 7 Office - Deer Park

DEC 4 1985

DW0550 TEXAS WATER COMMISSION 07-18-86

NOTICE OF REGISTRATION

INDUSTRIAL SOLID WASTE GENERATION/DISPOSAL

THIS IS NOT A PERMIT AND DOES NOT CONSTITUTE AUTHORIZATION OF ANY WASTE MANAGEMENT ACTIVITIES OR FACILITIES LISTED BELOW. REQUIREMENTS FOR SOLID WASTE MANAGEMENT ARE PROVIDED BY TEXAS ADMINISTRATIVE CODE SECTION 335 OF THE RULES OF THE TEXAS WATER COMMISSION (TWC). CHANGES OR ADDITIONS TO WASTE MANAGEMENT METHODS REFERRED TO IN THIS NOTICE REQUIRE WRITTEN NOTIFICATION TO THE TWC.

DATE OF NOTICE: 07-18-86 REGISTRATION DATE: 04-14-76

REGISTRATION NUMBER: 30458 EPA I.D. NUMBER: TXD043750512

THE REGISTRATION NUMBER PROVIDES ACCESS TO STORED INFORMATION PERTAINING TO YOUR OPERATION. PLEASE REFER TO THAT NUMBER IN ANY CORRESPONDENCE.

COMPANY NAME: PENNWALT CORP.
18000 CROSBY EASTGATE ROAD
CROSBY, TEXAS 77532
GENERATING SITE LOCATION:
HIGHWAY 90, CROSBY, TEXAS
CONTACT PERSON: JIMMY D. WHITE
PHONE: (713) 328-3561
NUMBER OF EMPLOYEES: 50 - 99
TWC DISTRICT: 07

REGISTRATION STATUS: ACTIVE
REGISTRATION TYPE: GENERATOR
HAZARDOUS WASTE STATUS: GENERATOR/TRANSPORTER

I. WASTE GENERATED:

WASTE NUMBER	DESCRIPTION	CLASS	CODE	DISPOSITION	
001	INDUSTRIAL PROCESS WASTEWATER CONTAINING HYDROCARBONS	I	109520	ON-SITE	WDW 182
002	ACID, PHOSPHOROUS	IH	905030	OFF-SITE	Rollins 01499

EPA HAZARDOUS WASTE NOS. (REFER TO 40 CFR PART 261 FOR DESCRIPTIONS): D002, D003

WASTE NUMBER	DESCRIPTION	CLASS	CODE	DISPOSITION	
003	ACID, SULFURIC (H2SO4)	IH	900040	OFF-SITE/SOLD FOR RECOVERY	Stauffer Chemical Company 30784-31819

EPA HAZARDOUS WASTE NOS. (REFER TO 40 CFR PART 261 FOR DESCRIPTIONS): D002

Gene B Hazelwood DF Class I

004	INDUSTRIAL PROCESS SLUDGE	I	149690	OFF-SITE	
005	AMINE SOLIDS (CORROSIVE)	IH	981260	NO LONGER GENERATED	

EPA HAZARDOUS WASTE NOS. (REFER TO 40 CFR PART 261 FOR DESCRIPTIONS): D002

006	DI-T-BUTYL UREA	II	281980	NO LONGER GENERATED
007	CYANIDE BEARING WASTES	IH	900430	NO LONGER GENERATED

EPA HAZARDOUS WASTE NOS. (REFER TO 40 CFR PART 261 FOR DESCRIPTIONS): P030

008	CYANIDE WASTES, TREATED	I	105040	NO LONGER GENERATED
009	TRIBUTYLAMINE	IH	918580	NO LONGER GENERATED

EPA HAZARDOUS WASTE NOS. (REFER TO 40 CFR PART 261 FOR DESCRIPTIONS):

010	METHYL ISOBUTYL KETONE	IH	914260	NO LONGER GENERATED

EPA HAZARDOUS WASTE NOS. (REFER TO 40 CFR PART 261 FOR DESCRIPTIONS):

011	CARBON, ACTIVATED, SPENT	I	181730	OFF-SITE
012	SOLVENTS, NON-HALOGENATED	IH	913860	ON-SITE/OFF-SITE

Rollins

EPA HAZARDOUS WASTE NOS. (REFER TO 40 CFR PART 261 FOR DESCRIPTIONS):

013	CHLOROFORM	IH	913750	NO LONGER GENERATED

EPA HAZARDOUS WASTE NOS. (REFER TO 40 CFR PART 261 FOR DESCRIPTIONS): U044

014	ORGANIC PEROXIDES	IH	916250	OFF-SITE

Rollins

EPA HAZARDOUS WASTE NOS. (REFER TO 40 CFR PART 261 FOR DESCRIPTIONS):

II. SHIPPING/REPORTING: PURSUANT TO TEXAS ADMINISTRATIVE CODE SECTION 335 OF THE RULES OF THE TWC PERTAINING TO INDUSTRIAL SOLID WASTE MANAGEMENT, ISSUANCE OF MANIFESTS AND MONTHLY REPORTING ARE REQUIRED FOR OFF-SITE STORAGE/PROCESSING/DISPOSAL OF THE FOLLOWING CLASS I WASTES LISTED IN PART I. A SHIPMENT SUMMARY REPORT SHOULD BE SUBMITTED FOR EACH MONTH NOT LATER THAN THE 25TH OF THE FOLLOWING MONTH.

002 905030 ACID, PHOSPHOROUS

003 900040 ACID, SULFURIC (H2SO4)

004 149690 INDUSTRIAL PROCESS SLUDGE

011 181730 CARBON, ACTIVATED, SPENT

012 913860 SOLVENTS, NON-HALOGENATED

014 916250 ORGANIC PEROXIDES

III. ON-SITE WASTE MANAGEMENT FACILITIES:

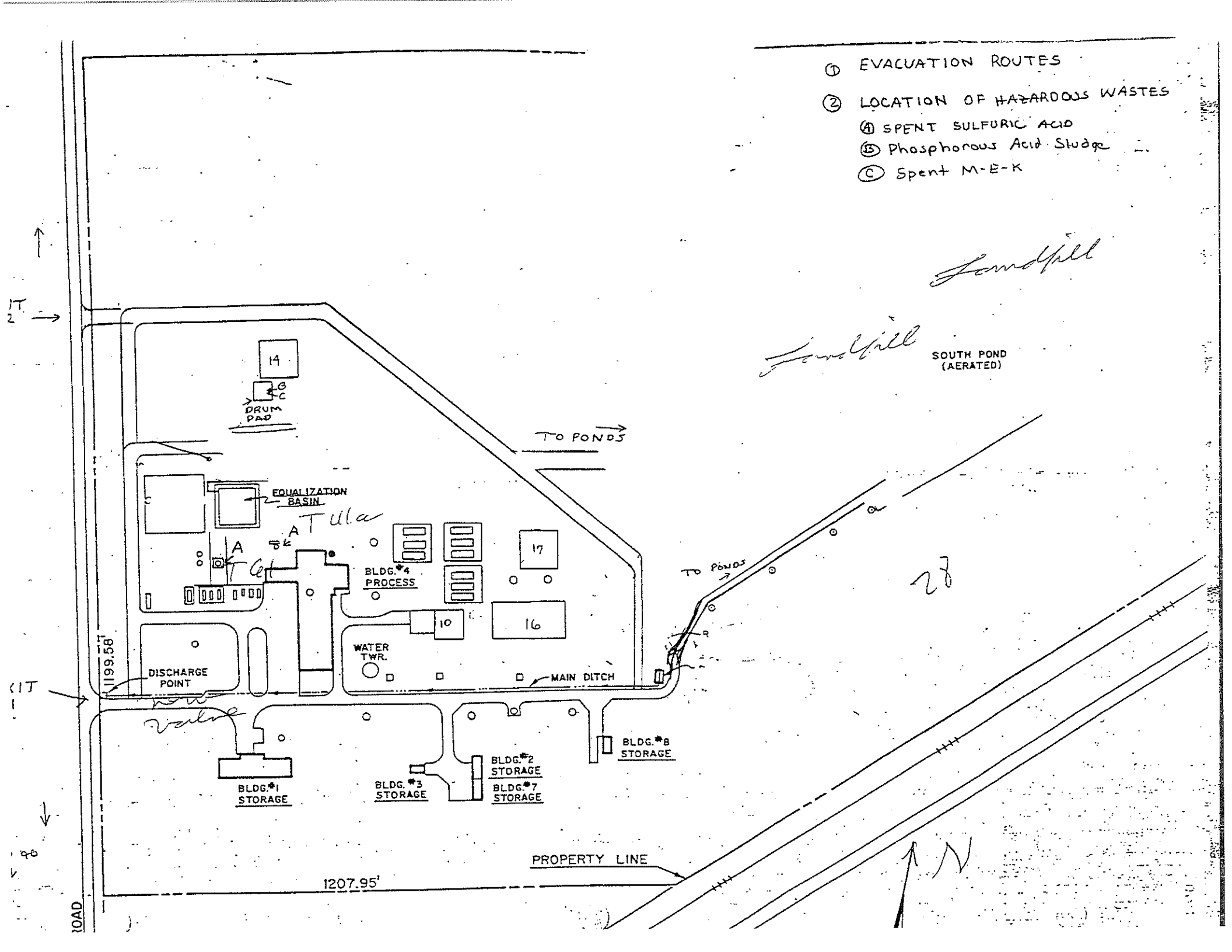
FAC NO.	FACILITY	STATUS
01	SURFACE IMPOUNDMENT PROCESSING OF WASTE NUMBER(S) 001, 008 CONCRETE LINED	ACTIVE
02	INJECTION WELL DISPOSAL OF WASTE NUMBER(S) 001, 007, 008	ACTIVE
03	TANK STORAGE/PROCESSING OF WASTE NUMBER(S) 003, 007, 008 6000 GAL. inactive TWO TANKS PARIAL CLOSURE PLAN SUBMITTED 4-85, APPROVED BY GPH 6-6-85	CLOSED
04	CONTAINER STORAGE AREA STORAGE OF WASTE NUMBER(S) 002, 012	ACTIVE
05	SURFACE IMPOUNDMENT Spill Pond STORAGE OF WASTE NUMBER(S) 001, 008 UNLINED SURFACE IMPOUNDMENT	ACTIVE
06	TANK (SURFACE) T 61 cap STORAGE OF WASTE NUMBER(S) 003 10000 GAL.	ACTIVE active
07 Tank 41a		
UNLESS OTHERWISE STATED ABOVE, FACILITIES ARE LOCATED AT HIGHWAY 90, CROSBY, TEXAS COUNTY OF HARRIS		inactive
08 Landfill		

IV. RECORDS.

A. FOR PURPOSES OF FILING ANNUAL REPORTS PURSUANT TO TEXAS ADMINISTRATIVE CODE SECTION 335 OF THE RULES OF THE TWC PERTAINING TO INDUSTRIAL SOLID WASTE MANAGEMENT, RECORDS SHOULD BE MAINTAINED FOR STORAGE, PROCESSING AND/OR DISPOSAL OF THE FOLLOWING WASTE(S) LISTED IN PART I:

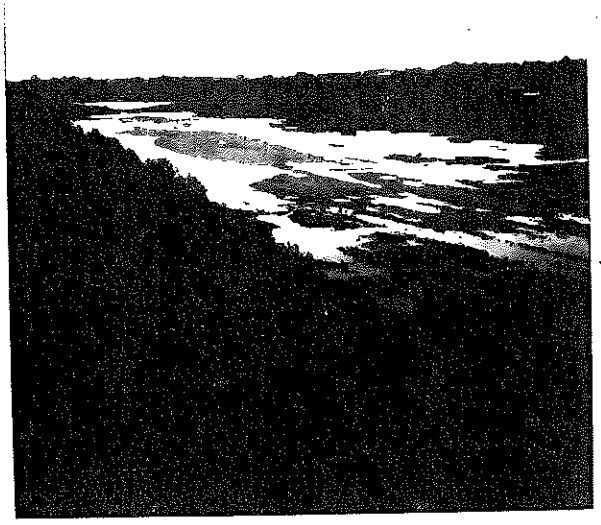
001 109520 INDUSTRIAL PROCESS WASTEWATER CONTAINING HYDROCARBONS

012 913860 SOLVENTS, NON-HALOGENATED

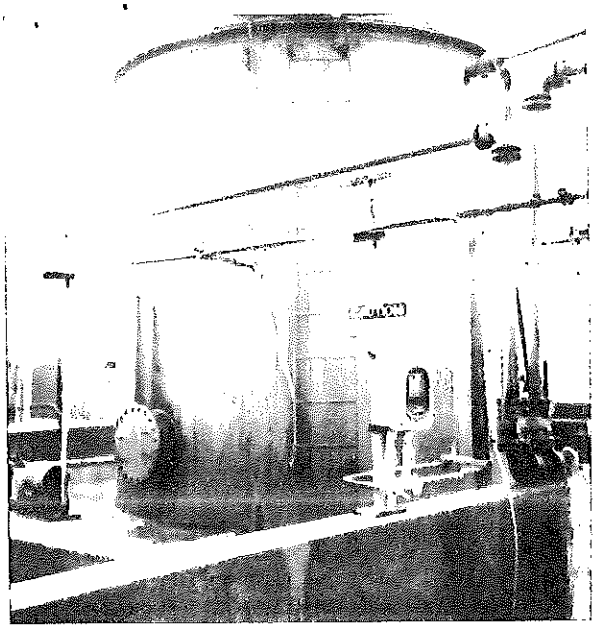

① EVACUATION ROUTES
② LOCATION OF HAZARDOUS WASTES
④ SPENT SULFURIC ACID
⑮ Phosphorous Acid Sludge
© Spent M-E-K
Landfill
Landfill
SOUTH POND (AERATED)
14
DRUM PAD
TO PONDS
EQUALIZATION BASIN
Tula
A
A
17
BLDG.#4 PROCESS
10
16
WATER TWR.
TO PONDS
DISCHARGE POINT
1199.58'
MAIN DITCH
Valve
BLDG.#1 STORAGE
BLDG.#3 STORAGE
BLDG.#2 STORAGE
BLDG.#7 STORAGE
BLDG.#8 STORAGE
PROPERTY LINE
1207.95'
N

8/5/86

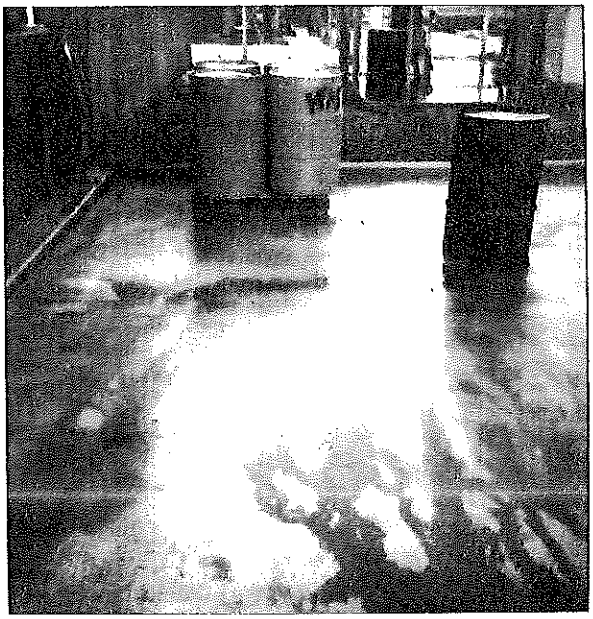
Pennwalt Corporation
Lucidol Division
Generator #30458



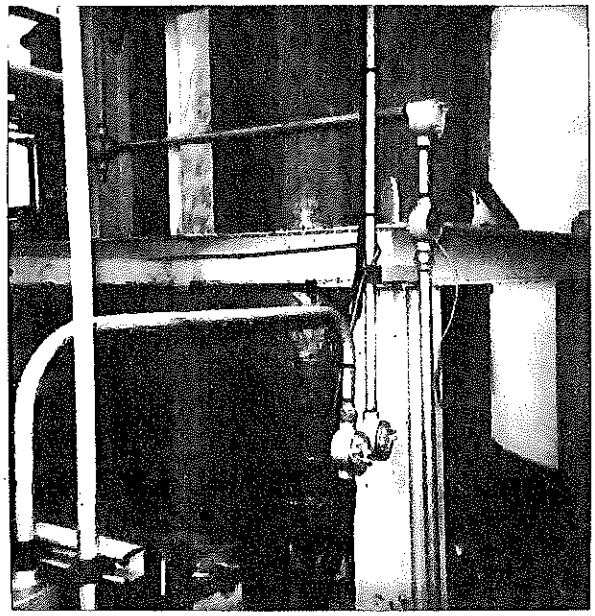
landfill
containing sludges
from South Pond



T-61

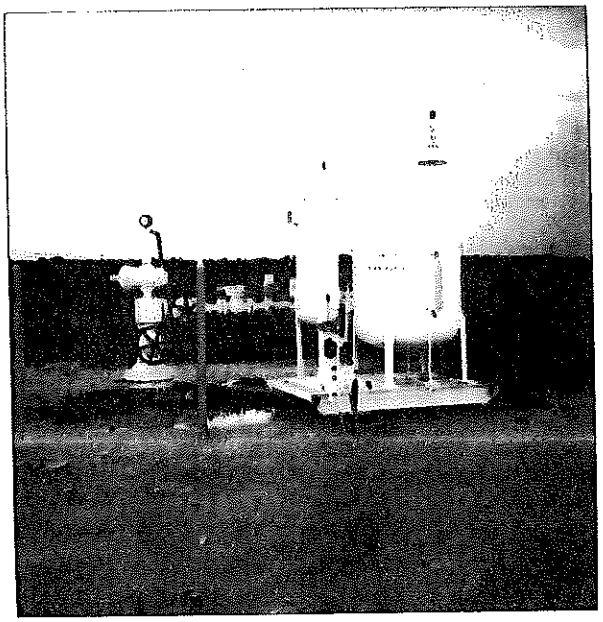


drum storage pad

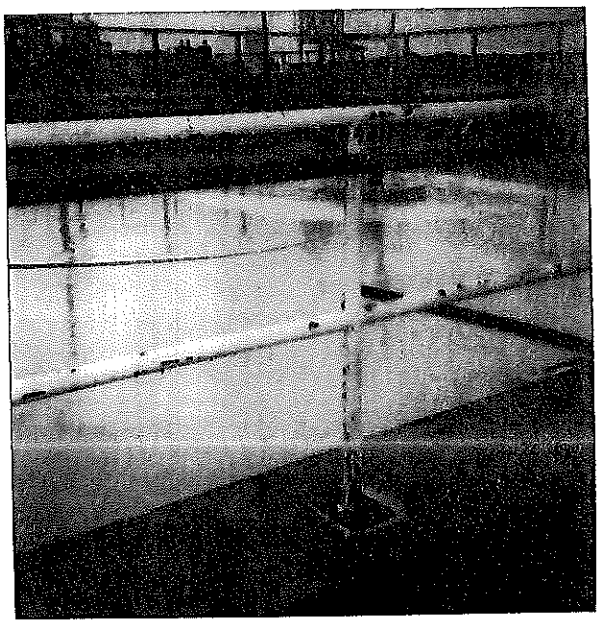


T-41a

8/5/86
Pennwalt Corporation
Lucidol Division
Generator #30458

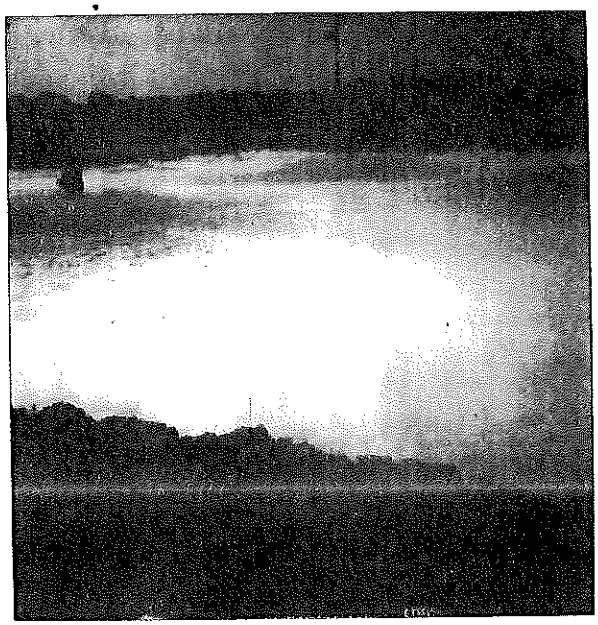


WDW 122

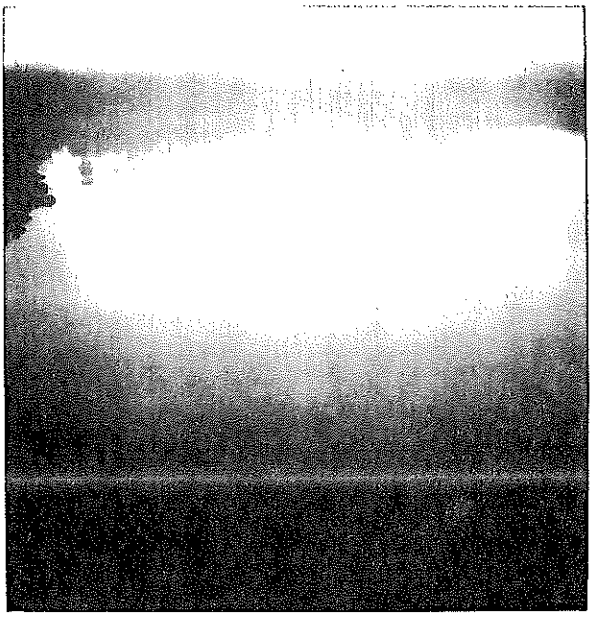


equalization basin

8/5/86
Pennwalt Corporation
Lucidol Division
Generator #30458

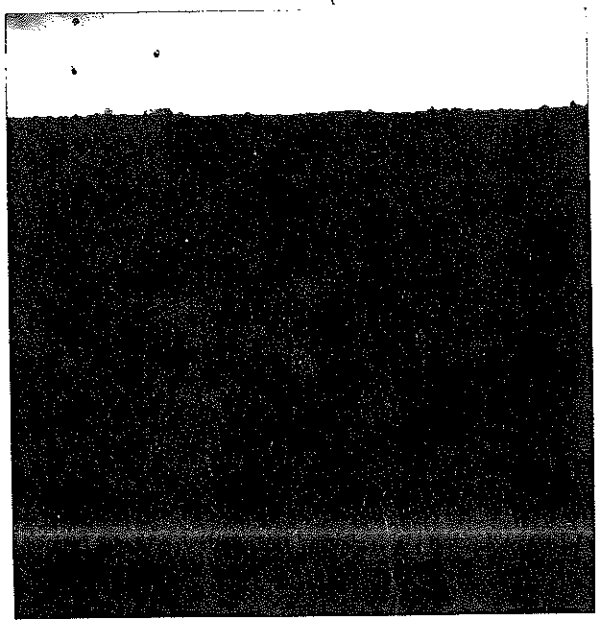


Earthen settling basin

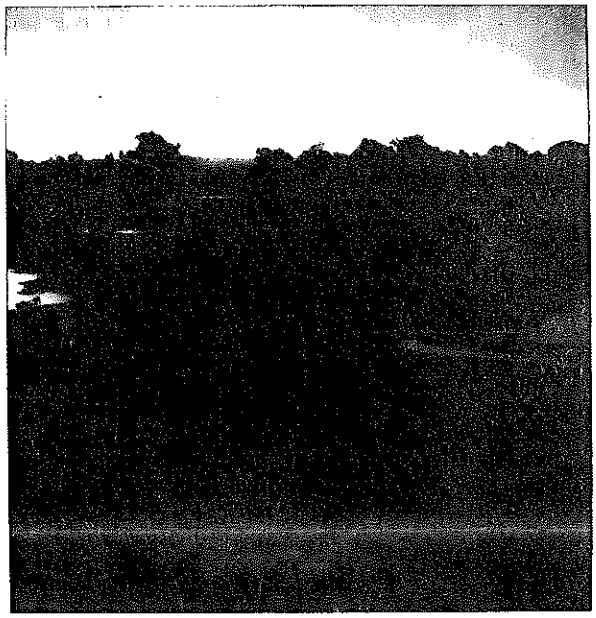


South Pond

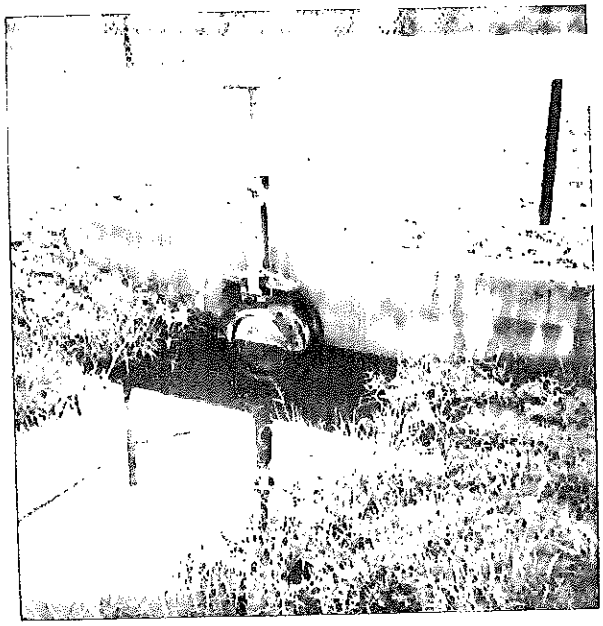
8/5/86
Pennwalt Corporation
Lucidol Division
Generator #30458



North Pond



Sludge Landfill

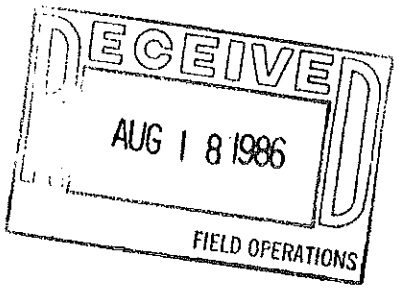


8/5/86
Pennwalt Corporation
Lucidol Division
Generator #30458

new valve on ditch at plant entrance

TEXAS WATER COMMISSION

August 15, 1986



Mr. William Connellee
Pennwalt Corporation
Lucidol Division
18,000 Crosby
Eastgate Road
Crosby, Texas 77532

Dear Mr. William Connellee:

Re: Pennwalt Corporation, Lucidol Division, ISW Registration No. 30458.

On August 5, 1986, Mr. Clarence E. Johnson conducted an industrial solid waste compliance inspection of your facility. The following deficiencies were noted:

1. Texas Administrative Code (TAC), Section 335.6 (c) - Notification Requirements
The Registration does not include Tank 41a and inactive landfill for South and North Pond sludge as waste management facilities. A request to amend the registration should be sent to:

Texas Water Commission
Attention: Mr. Ed Hatton
P. O. Box 13087
Austin, Texas 78711

2. TAC 335.112 which references 40 CFR 265.115 - Certification of Closure
Cyanide wastewater tanks closure has not been certified.

3. TAC 335.112 which references 40 CFR 265.15 - Inspection Requirements
Inspection log does not include name of inspector.

4. TAC 335.112 which references 40 CFR 265.192 - Tanks
Tank 61 needs to be repainted.

5. TAC 335.69 - Accumulation Time
Drums were stored on drum storage pad from 10/9/85 to 2/25/86 before shipment was made to Rollins. Shipment was late due to Rollins being unable to accept drummed wastes during a

turnaround. An extension was not requested from the Texas Water Commission.

6. TAC 335.10 - Shipping Requirements
Pennwalt Lucidol has shipped waste code number 149690 without use of a manifest.

7. TAC 335.2 - Permit Required
Pennwalt Lucidol has shipped waste code number 149690 to an unauthorized site for disposal of this waste.

8. TAC 335.3 - Guidelines
Pennwalt Lucidol's onsite landfill for South Pond sludge has ponding which is not in compliance with Texas Water Commission guidelines for landfills.

Please respond to this office in writing by October 1, 1986 with your plans and implementation schedule which will ensure corrective action of the above listed deficiencies by November 1, 1986. If you have any questions, please contact Clarence E. Johnson at (713)-479-5981.

Sincerely,

Tom Kearns
Manager
Hazardous and Solid Waste
Southeast Region

TK/CEJ/amh

TWC Reg. No. 30458

TEXAS WATER COMMISSION
Solid Waste Compliance Monitoring Inspection Report

C.O. Use Only
0884 KC

INSPECTION COVER SHEET

TWC Dist. 7

EPA ID No. TXD043750512   COMMERCIAL WASTE Facility___   GOVT. Facility_

NAME OF COMPANY Pennwalt Corp, Lucidol Division

MAILING ADDRESS 1800 Crosby Eastgate Rd Crosby   Tel. 713 328-3561

SITE LOCATION same   Tel. same

COUNTY Harris   TYPE OF INDUSTRY mfg organic peroxides

GENERATOR CLASSIFICATION: Industrial ✓ Municipal___

Part A Application submitted to the State ? Yes ✓ No___   To EPA ? Yes ✓ No___
Affidavit of Exclusion submitted to the State ? Yes ✓ No___
Was a written exclusion granted by TWC? Yes ✓ No___   If yes, Date 11/27/85
Will this facility require a permit ? Yes___ No ✓

CURRENT WASTE MANAGEMENT (Haz.-"H", Class I NonHaz.-"NH", Class II-"II", Class III-"III")

Generator H, NH Treatment H, NH Storage H, NH Disposal NH Transporter___

HW Exemptions(check): 90-Day Storage ✓ Other___

*SQG___:Total HW Generation Per Month: <100 kg.___ 100-1000 kg.___

H W Facilities (circle appropriate codes): (C) (T) SI WP LT LF I TT TR (WDW) O

N H Facilities (circle appropriate codes): C T (SI) WP LT (LF) I TT TR WDW O

Anomalies in the above information will be addressed by: (a) Enforcement in progress ___, (b) Central Office ___, (c) District Office ✓, (d) Owner/Operator ___.

Type of Inspection (circle): (EV) EB EC CL GW SA CD FO OT FE SQ SW

Inspector's Name and Title Clarence E Johnson

Inspection Participants Clark Paddock, Jimmy White

Date(s) of Inspection 8/5/86

Approved: [signature]
District Manager

Signed: Clarence E Johnson   8/13/86
Inspector   Date

* SQG- Small quantity generator, <1000 kg. of hazardous waste per month

01/8

TWC Solid Waste Inspection Report
(40 CFR Part 264 Subpart G; Part 265 Subpart G)
CLOSURE-In-PROGRESS CHECKLIST

TWC Reg. No. 30458
Reg. Facility No. 03

Note: To be completed if company is closing a RCRA facility.

1. Type of facility component: Cyanide Wastewater Tanks

2. Type of closure: Full-Facility Closure___ Partial Closure ✓

3. Has closure plan received TWC approval or final modification? N/A___ YES ✓ NO___ ***
   Date of approval: 6/6/85

4. If this is a Partial Closure, is this the last facility to be closed requiring RCRA ground water monitoring? N/A ✓ YES___ NO___

5. If this is an interim status facility:

   a. Has an approved **public notice** of closure been published? N/A ✓ YES___ NO___
      Date published: _____

   b. Is a **public hearing** required? YES___ NO ✓
      Date of hearing: _____

6. Has on-site closure work started? YES ✓ NO___
   Date work initiated: 11/7/84
   Completed 12/20/84

7. Is closure work proceeding according to the work schedule in the approved closure plan? N/A___ YES ✓ NO___

8. Have 180 days elapsed since TWC approval of the closure plan? N/A___ YES ✓ NO___

   a. If yes, has the TWC approved a closure period of greater than 180 days? N/A___ YES___ NO ✓

9. Was District Office notified of sampling event when complete removal of land-disposal facility was to have been accomplished? NA YES___ NO___

10. Were TWC **samples** taken to verify completion of closure? YES___ NO ✓

    NOTE: List chain-of-custody tag numbers in comments section.

11. Is the closure work **completed**? 12/20/84 YES ✓ NO___

12. Has the closure **certification** been submitted to TWC? N/A___ YES___ NO ✓
    Attach copy or explain.

*** An entry in this column indicates corrective action/response is needed.

05/86

TWC Reg. No. 30450

TEXAS WATER COMMISSION
Solid Waste Compliance Monitoring Inspection Report

INSPECTION COVER SHEET

EPA ID No. TXD043950512 Commercial Waste Facility ___ Govt. Facility ___

NAME OF COMPANY Pennwalt Corporation, Industrial Division

MAILING ADDRESS 1800 Crosby Eastgate Rd Crosby 713 Tel. 328-3561

SITE LOCATION same Tel. same

COUNTY Harris TYPE OF INDUSTRY organic chemicals

Part A Application submitted to the State ? Yes ✓ No ___ To EPA ? Yes ✓ No ___
Affidavit of Exclusion submitted to the State ? Yes ✓ No ___
Was a written exclusion granted by TWC? Yes ✓ No ___ If yes, Date 11/27/85
Will this facility require a permit ? Yes ___ No ___

Current Waste Management (Haz.-H, Class I NonHaz.-NH, Class II, III, or check as appropriate)

Generator H, NH Treatment H, NH Storage H, NH Disposal H, NH Transporter ___

HW Exemptions: SQG ___ 90-Day Storage ✓ Other ___

HW Facilities (circle appropriate codes): (C) (T) SI WP LT LF I TT TR (WDW) O

NH Facilities (circle appropriate codes): C T (SI) WP LT LF I TT TR WDW O

Anomalies in the above information will be addressed by : (a) Enforcement in progress ___, (b) Central Office ___, (c) District Office ___, (d) Owner/Operator ___.

Inspection Information :

Type of Inspection (circle): EV EB EC CL GW (SA) CD FO OT

Inspector's Name and Title Clarence E Johnson

Inspection Participants Jimmie White, Bill Connally

Inspection Date(s) 12/9/85

Approved : _____ District Manager

Signed : Clarence E Johnson Inspector

Date: 12/17/85

12/85

Texas Water Commission

INTEROFFICE MEMORANDUM

TO : Bill Brown
Field Operations Liaison
Hazardous and Solid Waste

DATE: December 31, 1985

THRU :

FROM : Clarence E. Johnson, Hazardous and Solid Waste
Southeast Region

SUBJECT: Pennwalt Corporation, Lucidol Division, Registration #30458, WDW 122, WDW 230.

I. INTRODUCTION

Pennwalt Corporation's Crosby Plant is a small Chemical plant, which manufactures organic peroxides. It uses WDW 122 and WDW 230 to dispose of their process wastewater.

Mr. Oliver Thompson of Crosby noticed some vacuum trucks at the Lucidol plant on Sunday December 8, 1985. He notified Rhonda MacKinnon of the Underground Injection Section on 12/9/85. Ms. MacKinnon notified the District 7 office. Clarence E. Johnson inspected the site on 12/9/85 with Mr. Jimmie White, environmental engineer and Mr. William Connallee, plant manager.

II. FINDINGS

1. The oxidation pond was observed building up in level on Friday, December 6, 1985.

2. The injection well system flow rate slowed down due to obstruction in flow line from oxidation pond to pretreatment facilities.

3. This line was replaced on 12/9/85. The oxidation pond overflowed to plant process sewers and ditches on Saturday, December 7, 1985. Three vacuum trucks from Ward McCarty Trucking Company Liberty, were in the plant removing contaminated water from oxidation pond and ditches to remaining portion of South Pond on 12/8/85. Plant failed to check gate valves for leaks until Sunday, 12/8/85.

4. The wastewater in the Crosby-Eastgate Road ditch was not removed until 12/9/85.

5. Pennwalt Corporation, Lucidol Division did not report the spill by Sunday, 12/8/85 as required.

6. Samples taken of wastewaters in the Crosby-Eastgate Road ditch indicate a change in TOC from 39 mg/l above to 1392 mg/l below. Please see data in Table I.

7. South Pond on 12/9/85 had a freeboard of 13 inches and a vacuum truck was still working picking up the spill.

8. Two dozers on 12/9/85 were covering with clay five million gallons of sludge from the South Pond which had been fixed with cement flue dust. They had about 50% of the fixed sludge covered with clay.

9. The remaining two acre portion of the South Pond contains 1-2,000,000 gallons of sludge, which remains to be removed in the near future.

III. RECOMMENDATIONS

1. Pennwalt Corporation, Lucidol Division was advised to call Texas Water Commission and Harris County Pollution Control, whenever vacuum trucks were used in the plant.

2. Pennwalt Corporation, Lucidol Division was advised that all six gate valves were leaking. Mr. Jimmie White said on 12/10/85 that all of the gate valves will be replaced with a new different type of valve.

This information is submitted as file data.

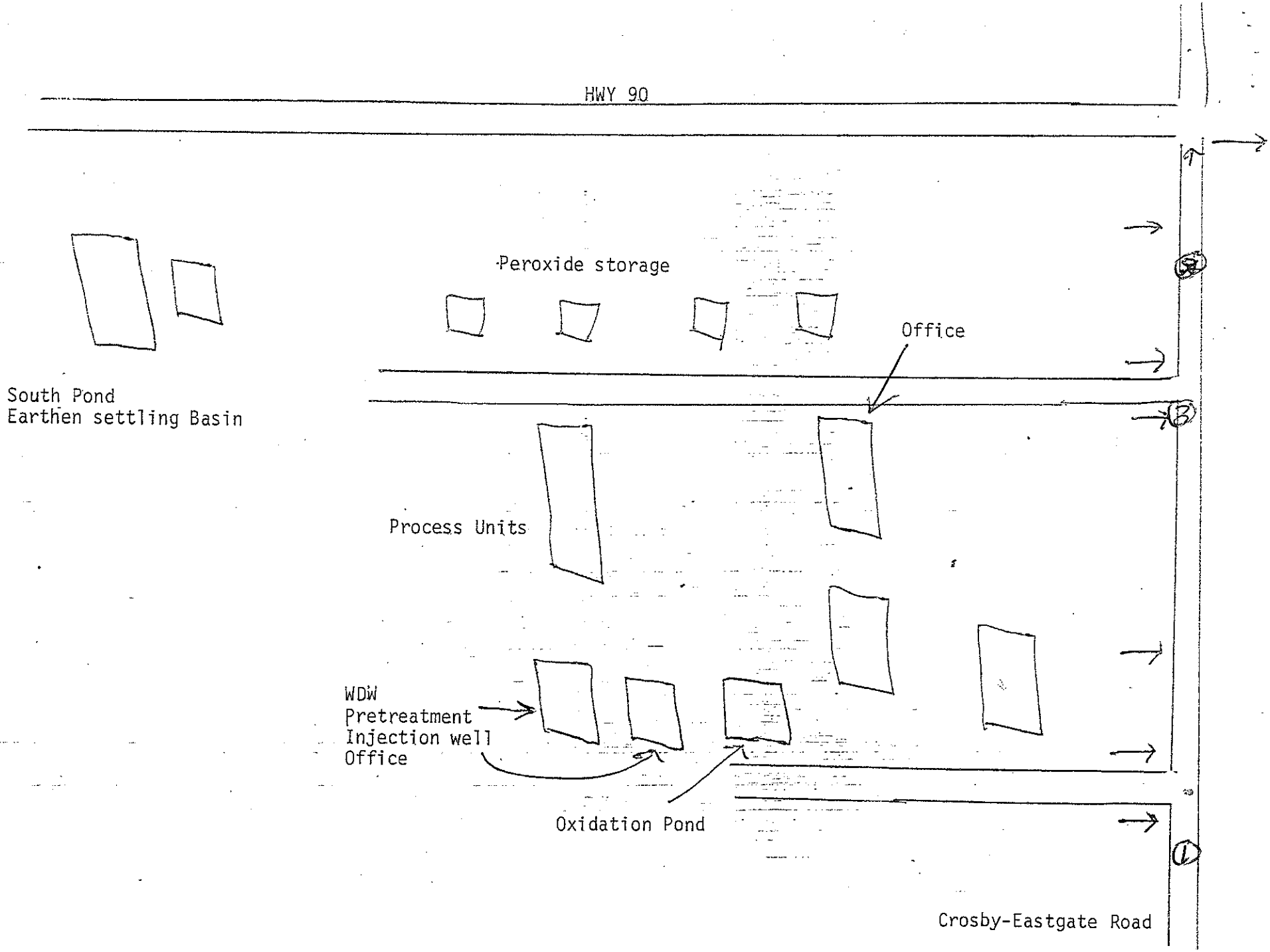
Table I
Pennwalt Lucidol Spill
of 12/7-9/85

Parameters	Above	Spill	Below
pH	7.37	9.82	5.72
TOC mg/l	39.0	2397.0	1592.0
COD mg/l	55.0	7167.0	5124.0
Conductivity	12.0	35350.0	16968.0
Total Alkalinity mg/l	340.0	2488.0	498.0
Chlorides mg/l	163.0	13888.0	4852.0
Sulfate mg/l	64.0	710.0	1785.0
Oil and grease mg/l		189.0	

Signed Clarence E Jordan

Approved

TK/CJ/np


HWY 90
Peroxide storage
Office
South Pond
Earthen settling Basin
Process Units
WDW
Pretreatment
Injection well
Office
Oxidation Pond
Crosby-Eastgate Road

CORPORATION
18000 Crosby Eastgate Road, Crosby, Texas 77532 • (713) 328 3561
CHEMICALS - EQUIPMENT - HEALTH PRODUCTS

December 9, 1985

Mr. Clarence Johnson
TEXAS WATER COMMISSION
4301 Center Street
Deer Park, Texas 77536

Dear Mr. Johnson:

In follow-up of our meeting on December 9, 1985, I am informing you of an accidental spill that occurred at this plant. Our primary wastewater collection basin (Equalization Pond) overflowed and spilled into the ditch system. This waste is non-hazardous according to RCRA standards. Vacuum trucks were called in to collect the spillage. The overflow was due to a restriction in the transfer pipe from the pond to the pretreatment system. A secondary line has been installed to bypass this restriction.

Approximately 100 gallons of the spillage managed to seep through a new gate valve. The valve was installed three weeks ago and this was the first time it had been used in service. The valve will be tested with fresh water and the source of the leakage will be removed. This wastewater was also picked up via vacuum truck.

If I can supply more information, please contact me at 713/328-3561.

Sincerely,

LUCIDOL DIVISION
Pennwalt Corporation

Jimmy D. White
Environmental Supv.

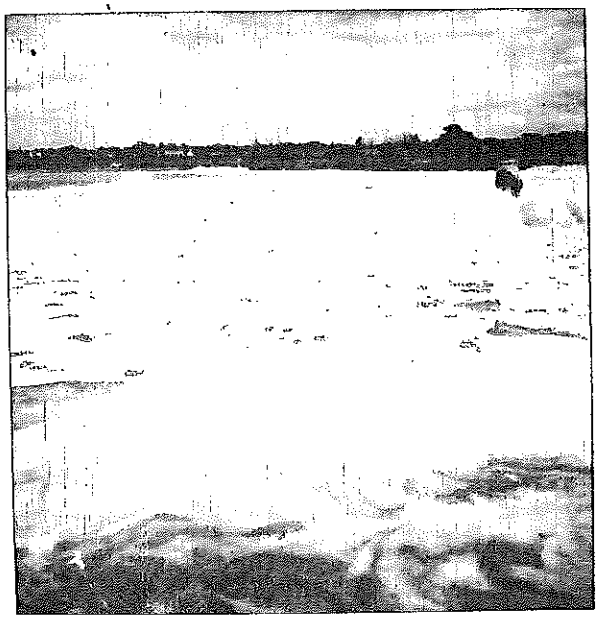
JDW:ja
cc: Rhonda MacKinnon
Doug Ucci
S. Balamoun

RECEIVED
DEC 11 1985

Dozers covering fixed
sludge from South Pond

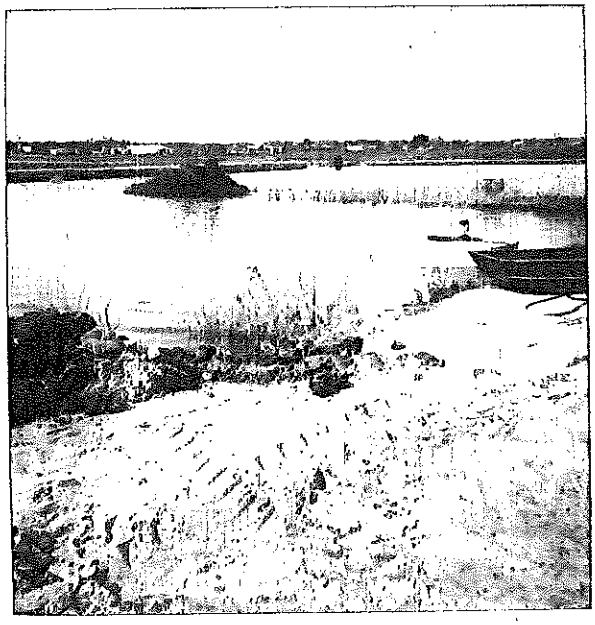
12/9/85

Pennwalt Corporation Lucidol
Division, WDW 122 and 230
Registration #30458



South Pond Freeboard
13 inches

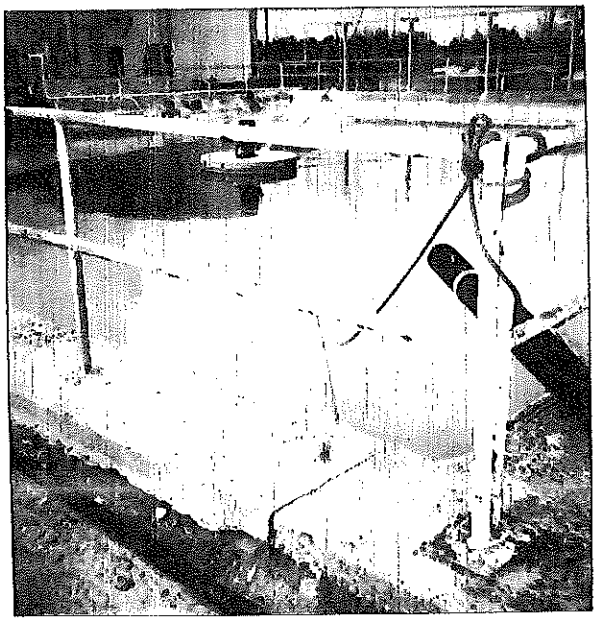
Vacuum trucks dumping
into South Pond



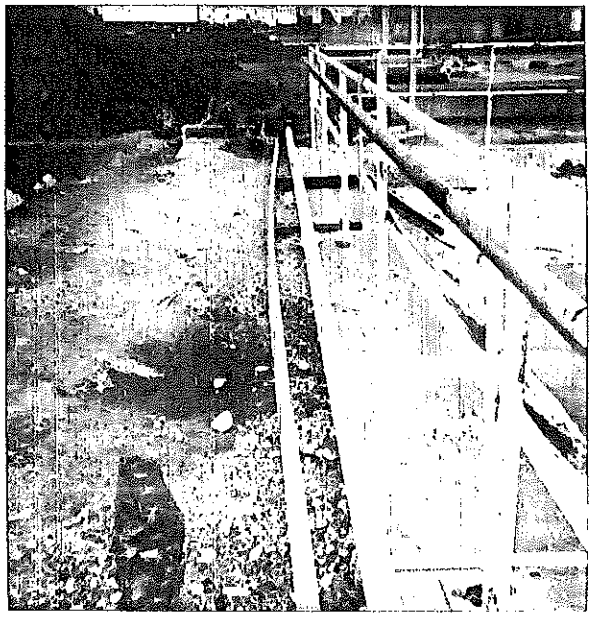
12/9/85

Pennwalt Corporation Lucidol
Division, WDW 122 and 230
Registration #30458

Settling Basin



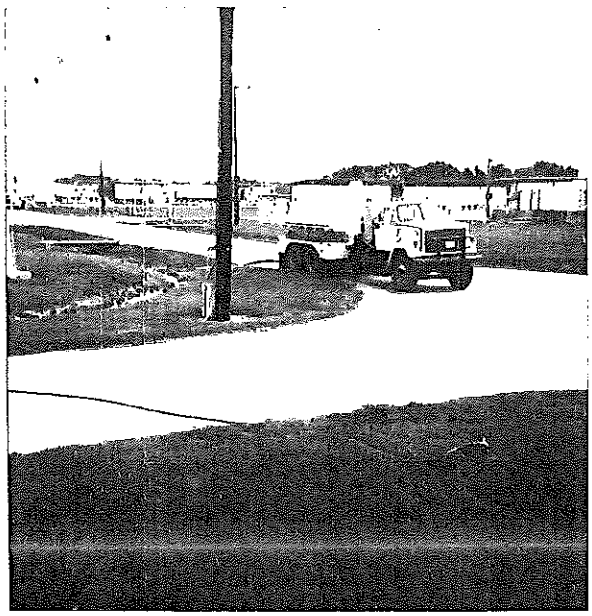
Oxidation pond



New pipeline to
injection well

12/9/85

Pennwalt Corporation Lucidol
Division, Generator #30485,
WDW 122



Vacuum truck picking up spill

Leaking gate valve

Wastewater from leaking gate valve

12/9/85

Pennwalt Corporation Lucidol Division, Generator #3U458
WDW 122

TEXAS WATER COMMISSION

December 16, 1985

Mr. Allan Trovillion
Torque Petroleum Products, Inc.
P. O. Box 1326
Dickinson, Texas 77539

CERTIFIED MAIL

RE: RCRA Liability Coverage
Texas Water Commission Registration Number 34323

Dear Mr. Trovillion:

We have received a photocopy of a certificate of insurance from National Union Fire Insurance Co. (policy numbers S9961885, GLA 9180 276 and MU 155 3386) for liability coverage for the above referenced facility.

In order to fulfill liability coverage requirements in accordance with 40 CFR 264.147 and 265.147, we must have an originally signed duplicate certificate of insurance amended by attachment of the Hazardous Waste Facility Liability Endorsement. Both must be worded as specified in 40 CFR 264.151. Sudden accidental occurrences must be covered in the amount of at least $1 million per occurrence and $2 million annual aggregate, exclusive of legal defense costs. Coverage for non-sudden occurrences is required to be in the amount of $3 million per occurrence and $6 million annual aggregate, exclusive of legal defense costs. The certificate submitted November 25, 1985 does not fulfill these criteria. Non-sudden coverage is required only for owner/operators with surface impoundments, landfills, and/or land treatment facilities.

In addition, we have never received financial assurance for closure/post-closure costs for this facility, as required by 40 CFR 264.143 and 264.145. Failure to provide financial assurance for closure/post-closure care and failure to provide complete and adequate liability insurance constitute violations of 40 CFR 264.-265.143, 264.-265.145, and 264.-265.147 requirements.

This agency will expect documentation of liability coverage and closure/post-closure financial assurance within 30 days. Contact Ms. Kay Crouch for assistance in financial assurance matters.

Sincerely,

Russell Kimble, Head
Program Support Unit
Program Support Section
Hazardous and Solid Waste Division

KC:mk

cc: Texas Water Commission, Deer Park Office

(3)

TEXAS DEPARTMENT OF WATER RESOURCES TDWR-0849

NO. SW 06482

Site Name Pennwalt Fundol

Site Location Crosby

County Harris Basin Tri-San Jac

Method of Collection bucket & rope

District 31 Org. No. 331 Work No. 911c Lab. EPA

Point of Collection ditch N of entrance road - spill site

Type Facility: ☐ Drum; ☐ Tank; ☐ Impoundment; ☐ Landfill ☐ Waste Pile; ☐ Landfarm; ☑ Other WDW

Time Collected 1:05 (am/pm) Date Shipped 12/6/85

Add. COC #s AT 9263 , 9263

ODOR: ☑ Yes; ☐ No; Describe chemical

S.W. Registration (1–9)	Permit Number (10–18)	Page No. (19–21)	Card Type (22)	Date Mo. (23–24)	Day (25–26)	Yr. (27–28)	Mat. Samp. (29)
30458			8	12	09	85	5

Clarence E Johnson

(Collector's Signature)

30 Code	35 Parameter Value	44 Code	49 Parameter Value	58 Code	63 Parameter Value 71

TEXAS DEPARTMENT OF WATER RESOURCES TDWR-0849

NO. SW 06482

District 31 Org. No. 331 Work No. 911c Lab. EPA

Material Sampled: ☐ Solid waste (W); ☐ Liquid waste (L); ☐ Soil (E); ☐ Well (M); ☑ Stream (S); ☐ Other (O)

Comments

(continued on back)

Lab Only	Date	
	rec'd. DEC 10 1985	3244 (Lab. No.)
	DEC 17 1985	
	Analyst sign.	

Preservation: ☐ None; ☑ Ice; ☐ H_2SO_4; ☐ HNO_3 ☐ Other

Auxiliary Tags AT 9263 , 9263

☐ LEACHATE: ___ EP Toxicity Series; ___ TDWR

30 Code	35 Parameter Value	44 Code	49 Parameter Value	58 Code	63 Parameter Value 71
pH		sulfates		COD	
00403	9.82	00945	.710	00335	7167
Conductivity				TOC	
00095	35350			00680	2397
Chlorides		NO_2-N		T-PO_4	
00940	13888	00615	.027	00665	388
o-phosphate		T-ALK.		NH_3-N	
00671	229	00410	2488	00610	.481
Oil and grease		P. ALK.		NO_3-N	
00556	189	00415	405	00620	.045

TEXAS DEPARTMENT OF WATER RESOURCES TDWR-0849

NO. SW 06481 District 31 Org. No. 331 Work No. 9110 Lab. EPA

Site Name Lowewalt Landal

Site Location Crosby

County Harris Basin Trinity-San Jac

Method of Collection plastic bucket + rope

Point of Collection ditch below - below main entrance

Type Facility: ☐ Drum; ☐ Tank; ☐ Impoundment; ☐ Landfill ☐ Waste Pile; ☐ Landfarm; ☑ Other WDW

Time Collected 12:55 (am, pm) Date Shipped 12/10/85

Add. COC #s AT 2450C

ODOR: ☑ Yes; ☐ No; Describe chemical

S.W. Registration (1–9)	Permit Number (10–18)	Page No. (19–21)	Card Type (22)	Date Mo. (23–24)	Day (25–26)	Yr. (27–28)	Mat. Samp. (29)
30458			8	12	09	85	S

Clarence E Johnson (Collector's Signature)

30 Code	35 Parameter Value	44 Code	49 Parameter Value	58 Code	63 Parameter Value 71

TEXAS DEPARTMENT OF WATER RESOURCES TDWR-0849

NO. SW 06481 District 31 Org. No. 331 Work No. 9110 Lab. EPA

Material Sampled: ☐ Solid waste (W); ☐ Liquid waste (L); ☐ Soil (E); ☐ Well (M); ☑ Stream (S); ☐ Other (O)

Comments

(continued on back)

Lab Only — Date rec'd. DEC 10 1985; Date cmpt. DEC 17 1985; 3243 (Lab. No.)

Analyst sign. Jerry [illegible]

Preservation: ☐ None; ☑ Ice; ☑ H_2SO_4; ☐ HNO_3 ☐ Other

Auxiliary Tags AT 2450C

☐ LEACHATE: ___EP Toxicity Series; ___TDWR

30 Code	35 Parameter Value	44 Code	49 Parameter Value	58 Code	63 Parameter Value 71
pH		NH_3-N		COD	
00403	5.72	00610	.948	00335	5124
conductivity		NO_3-N		TOC	
00095	16968	00620	.091	00680	1592
chlorides		NO_2-N		T-PO4	
00940	4852	00615	.012	00665	180
o-phosphate				T-ALK.	
00671	61.0			00410	498
sulfate					
00945	1785				

TEXAS DEPARTMENT OF WATER RESOURCES TDWR-0849

NO. SW 06480 District 31 Org. No. 331 Work No. 9110 Lab. EPA

(1)

Site Name: Pennwalt - Inudol

Site Location: Crosby

Point of Collection: ditch above past last gate valve

County: Harris Basin: Trinity-San Jac

Method of Collection: plastic bucket + tape

Type Facility: ☐ Drum; ☐ Tank; ☑ Impoundment; ☐ Landfill; ☐ Waste Pile; ☐ Landfarm; ☑ Other WPW

Time Collected 12:40 (am, pm) Date Shipped 12/10/85

Add. COC #s AT 3ccc99

ODOR: ☑ Yes; ☐ No; Describe chemical

S.W. Registration (1–9)	Permit Number (10–18)	Page No. (19–21)	Card Type (22)	Mo. (23–24)	Day (25–26)	Yr. (27–28)	Mat. Samp. (29)
30458			8	12	09	85	S

Clarence E Johnson (Collector's Signature)

30 Code	35 Parameter Value	44 Code	49 Parameter Value	58 Code	63 Parameter Value 71

TEXAS DEPARTMENT OF WATER RESOURCES TDWR-0849

NO. SW 06480 District 31 Org. No. 331 Work No. 9110 Lab. EPA

Lab Only — Date: recd. DEC 10 1985; cmplt. DEC 17 1985 — 3242 (Lab. No.)

Analyst sign. J Mills

Material Sampled: ☐ Solid waste (W); ☐ Liquid waste (L); ☐ Soil (E); ☐ Well (M); ☑ Stream (S); ☐ Other (O)

Preservation: ☐ None; ☑ Ice; ☐ H_2SO_4; ☐ HNO_3; ☐ Other

Comments: * Sample Frozen - J Mills (continued on back)

Auxiliary Tags AT 3ccc99

☐ LEACHATE: ___ EP Toxicity Series; ___ TDWR

30 Code	35 Parameter Value	44 Code	49 Parameter Value	58 Code	63 Parameter Value 71
pH 00403	7.37	T-Alk. 00410	340	COD 00335	55
Conductivity 00095	8212			TOC 00680	39
Chlorides 00940	1163			NH_3-N 00610	.023
O-Phosphate 00671	.476			NO_3-N 00620	.033
Sulfate 00945	64	T-PO4 00665	.848	NO_2-N 00615	.034

39 pp

TEXAS DEPARTMENT OF WATER RESOURCES
1700 N. Congress Avenue
Austin, Texas

January 19, 1984

Mr. Jim White, Chemical Engineer
Pennwalt Corp. - Lucidol Division
P.O. Drawer 810
Crosby, Tx. 77532

Dear Mr. White,

Re: Pennwalt Corp., ISW Registration No. 30458

On November 3, 1983 Susan Ripley of this department conducted an industrial solid waste compliance inspection of your facility. The following deficiencies were noted:

1. The facility's Part A permit application needs to be updated to include cyanide wastes and the two tanks for storage and processing of those wastes. The Notice of Registration should also be updated to include the same additions. These changes are necessary to fulfill the notification requirements of Texas Administrative Code (TAC) Section 335.6(b).

2. The waste analysis plan should include analysis for cyanide as required by TAC Section 335.114; specifically, subsection (b) [illegible]

3. The cyanide treatment tanks should have signs stating "Danger - Unauthorized Personnel Keep Out" as required by TAC Section 335.[illegible]

[illegible]

5. The facility's closure plan does not include the drum storage area, the expected year of closure, nor certification as required by TAC Sections 335.213(a)(2) and (4) and 335.216. It should be noted that the facility is required to update their closure cost estimate in March, 1984.

REPLY TO: DISTRICT 7 / 4301 CENTER STREET / DEER PARK, TEXAS 77536 / AREA CODE 713/479-5981

P. O. Box 13087 Capitol Station • Austin, Texas 78711 • Area Code 512/475-3187

Please respond to this office in writing by February 20, 1984 with your plan and schedule for correcting the above deficiencies. If you have any questions, please contact Susan Ripley at 713-479-5981.

Sincerely,

Merton J Coloton

Merton J. Coloton, P.E.
Supervisor, District 7

MJC/SR/ka

PENNWALT CORPORATION
LUCIDOL
18000 Crosby Eastgate Road, Crosby Texas 77532 • (713) 328-3561

October 4, 1983

S.W#30458

Dwight C. Russell
DISPOSAL FACILITIES UNIT, TDWR
1700 N. Congress Avenue
Austin, Texas 78711

Dear Mr. Russell:

In follow up of our conversation of October 4, 1983, I would like to submit the soil samples taken in September 1981. I believe the results would indicate that the pond in question is impermeable. Also submitted are recent bacteriological test taken of a fresh water well located roughly 350 yards from the pond.

As required by our recently issued disposal permit, we have two years to empty the pond and thus eliminate any need for ground water monitoring in the future.

I hope this information will help you and at the same time eliminate any need for drilling additional wells.

Sincerely,

LUCIDOL DIVISION
Pennwalt Corporation

Jimmy D. White
Chemical Engineer

JDW:ja

Non-commun[illegible] Water Supply Chemical Analysi[illegible]eport
Texas Department of Health - Division of Water Hygiene
1100 West 49 th Street Austin, Texas 78756

Send Report To:
Penwalt - Lucidol - Crosby
18000 Crosby - Eastgate
Crosby, TX. 77532

NAME OF WATER SUPPLY:
Penwalt - Lucidol - Crosby

Water Supply I.D. # [illegible] (1-7)

County Harris

SAMPLE TYPE
- [X] Distribution
- [ ] Plant Discharge
- [ ] Raw Supply
- [ ] Other

IF FROM WELL
Depth _____ ft.
Age _____ yrs.
Well No. _____

IF SURFACE SUPPLY
Name of Source _____

REMARKS: 1 pt.

J. B. Finney Jr. (Signature)

Date Collected 2 / 25 / 83 (31-36)

Laboratory No. _____ (10-13) Date Received _____ (17-20) Date Reported _____ (10-13) (17-20)

1016	Calcium	____. mg/l	1028	Iron	__.__ mg/l
1031	Magnesium	____. mg/l	1032	Manganese	__.__ mg/l
1052	Sodium	____. mg/l			
1929	Carbonate	____. mg/l			
1928	Bicarbonate	____. mg/l			
1055	Sulphate	____. mg/l			
1017	Chloride	____. mg/l			
1025	Fluoride	__.__ mg/l			
1040	Nitrate (as N)	__.__ mg/l			
1050	Dissolved Solids	____. mg/l			
1931	Phenolphthalein Alkalinity as CaCO	____. mg/l			
1927	Total Alkalinity as CaCO	____. mg/l			
1915	Total Hardness as CaCO	____. mg/l			
1925	pH	__.__			
1926	Diluted Conductance Micromhos/cm.	____.			

FORM NO. H-71

WATER BACTERIOLOGY
HOUSTON CITY HEALTH DEPARTMENT LABORATORY
(A Regional State Health Department Laboratory)

Pennwalt/Lucidol — Harris
Name of Water System — County

Well discharge — JAW — 4/11/83 — Time AM/PM
Point of Collection — Collected by — Date (Mo., Day, Yr.)

Send report to:
NAME Jimmy White
STREET 18000 Crosby-Eastgate Rd
CITY Crosby — TEXAS 77532 (Zip Code)

Water System Identification Number 1011931

TYPE OF SYSTEM: ☒ Public ☐ Bottled Water ☐ Swimming Pool ☐ Dairy ☐ Individual ☐ School
SAMPLE IS: (Public Systems Only) ☐ Distribution ☐ Check ☒ Raw ☐ Special ☐ Construction
WATER SOURCE: ☐ River ☐ Lake ☒ Well
Well depth 430 ft
Chlorine residual —

Total samples collected this date 1

Do Not Mark Below This Line

Presumptive Test — 24 hr. — 48 hr. — Lab No. 21638

Date Received APR 12 1983

MPN Confirmed Test —

MPN Completed Test —

Date Reported APR 14 1983

Coliform Organisms Found ☐ Not Found ☒

☐ Preliminary Report ☒ Final Report

Unsatisfactory:

Water of satisfactory bacteriological quality should be free of Coliform Organisms.

WATER BACTERIOLOGY
HOUSTON CITY HEALTH DEPARTMENT LAB
(A Regional State Health Department Laboratory)

Pennwalt/Lucidol — Harris
Name of Water System — County

Water hose — J. White — 8/9/83
Point of Collection — Collected by — Date (Mo., Day, Yr.)

Send report to:
NAME Jimmy White
STREET 18000 Crosby Eastgate R
CITY Crosby Tx — TEXAS 7753

Water System Identification Number 2484

TYPE OF SYSTEM: ☐ Public ☐ Bottled Water ☐ Dairy ☐ Swimming Pool ☐ School ☒ Individual
SAMPLE IS: (Public Systems Only) ☐ Distribution ☐ Check ☐ Raw ☐ Special ☐ Construction
WATER: ☐ River ☐ Lake ☒ Well
Well depth
Chlorine residual

Total samples collected this date —

Do Not Mark Below This Line

Presumptive Test — 24 hr. — 48 hr. — Lab. No. 48913

Date Received AUG 09 1

MPN Confirmed Test —

MPN Completed Test —

Date Reported AUG 11 1

Coliform Organisms Found ☐ Not Found ☒

☐ Preliminary Report ☒ Fin

Unsatisfactory:

Water of satisfactory bacteriological quality should be free of Coliform O

SWL SOUTHWESTERN LABORATORIES

Materials, environmental and geotechnical consultation, fundamental testing and analytical services
P. O. Box 17068 • 220 Cavalcade • Houston, Texas 77009 • 713/692-9151

September 22, 1981

Re: Report of Subsurface Exploration
Holding Ponds
Lucidol Plant
Crosby, Texas
SWL No. 81-250

Ed L. Reed & Associates, Inc.
1109 N. Big Spring
Midland, Texas 79701

Attention: Mr. Ed L. Reed, P.E.

Gentlemen:

Southwestern Laboratories has completed the subsurface exploration for the above referenced project. This work was authorized by Lucidol's Purchase Order No. C1951.

Originally two (2) soil test borings were requested by Mr. Reed; however, at the time of the exploration, Mr. Chester Smith with Lucidol requested that a third boring be drilled and associated laboratory tests performed. All borings were drilled to a depth of 40 feet below existing grade and were grouted with cement after completion of the field operations.

Laboratory tests were assigned by Mr. Reed and consisted of Atterberg Limits, specific gravities, permeabilities and chloride analysis. The Boring Plan, showing the approximate boring locations, the Logs of Borings and the Summary of Laboratory Test Data are attached.

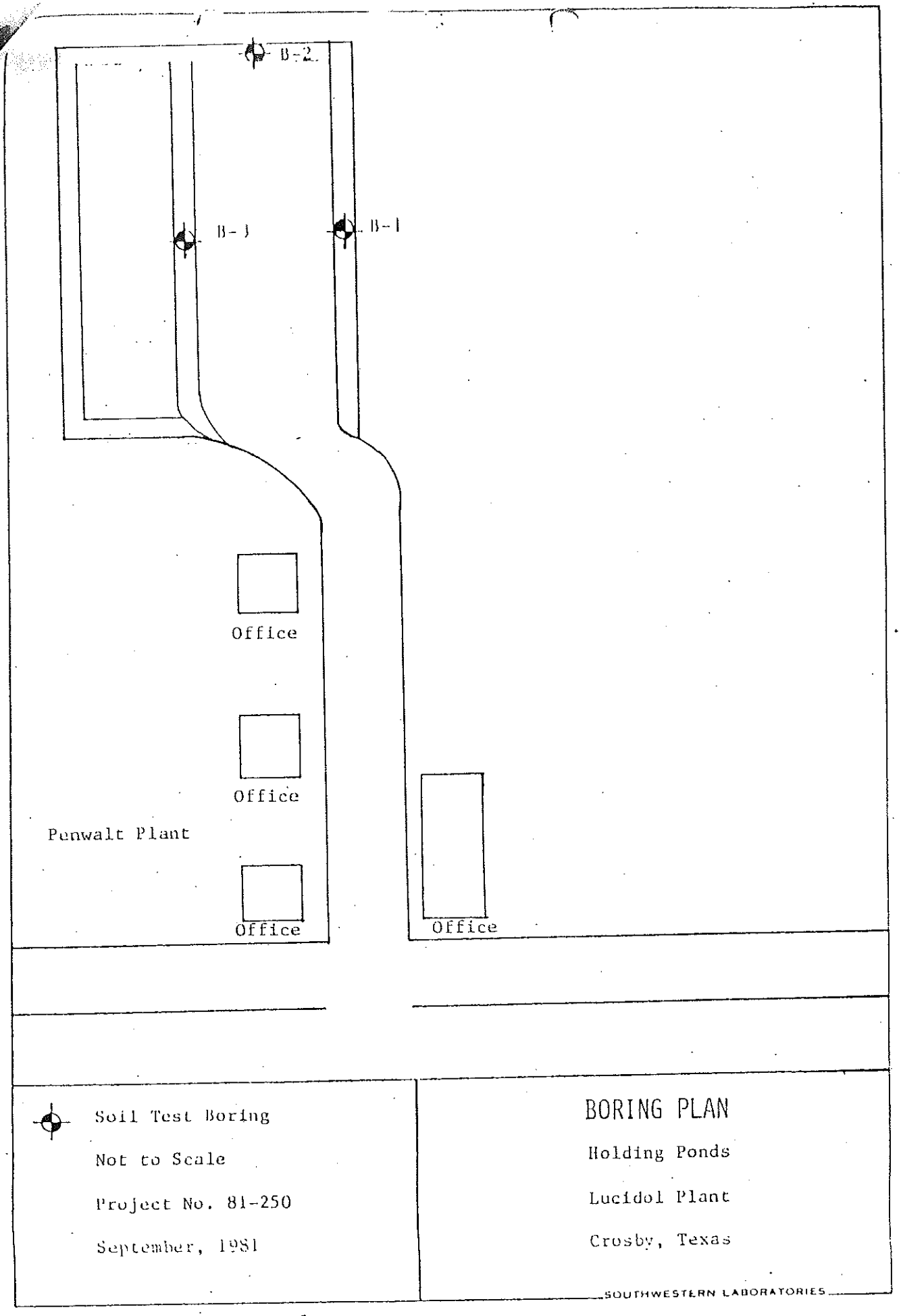
If you have any questions or if we can be of further service, please contact us.

Yours very truly,

SOUTHWESTERN LABORATORIES

John A. Gunter, P.E.
Project Manager
Geotechnical Engineering Division

cc: 3 Ed L. Reed & Assoc.
1 Lucidol - Dr. Uday Wagley



Soil Test Boring

Not to Scale

Project No. 81-250

September, 1981

BORING PLAN

Holding Ponds

Lucidol Plant

Crosby, Texas

SOUTHWESTERN LABORATORIES

SUMMARY OF LABORATORY TEST DATA

PROJECT Holding Ponds, Lucidol Plant, Crosby, Texas
DATE Project No. 81-250
9/3/81

BORING NO	DEPTH IN FEET	TYPE OF MATERIAL	MOISTURE CONTENT %	DRY DENSITY pcf	ATTERBERG LIMITS LL	PL	PI	COMPRESSION TEST: COMPRESSION tsf	STRAIN %	LATERAL PRESSURE psf	Specific Gravity	OTHER TEST: Permeability cm sec
1	0-2	Gray, light gray and tan clay with ferrous and calcareous nodules and limestone gravel, fill	18	114	62	20	42				2.63	
	2-4	Gray, dark gray and tan clay with calcareous nodules and sand partings	23	99								7.9×10^{-9}
	6-8	Dark gray silty clay with ferrous nodules and organic	27	98	48	19	29				2.64	
	8-10	Gray and light gray silty clay with silt pockets and ferrous nodules	25	97								1.6×10^{-8}
	12-14	Light gray and tan clay, very calcareous, slightly silty	21	112	52	19	33				2.68	
	16-18	Light gray and tan silty clay with calcareous nodules	27	99	47	17	30				2.67	
	18-20	Tan and light gray clay with calcareous nodules, slickensided	23	98								3.4×10^{-9}
	28-30	Tan and light gray silty clay with clay seams and pockets and calcareous seams	28	97	46	19	27				2.69	
	33-35	Tan and light gray clay, slickensided, fragmented	33	89	83	23	60				2.71	
	38-40	Tan and light gray clay with calcareous nodules, slickensided	25	102	65	22	43				2.67	

SUMMARY OF LABORATORY TEST DATA

PROJECT Holding Ponds, Lucidol Plant, Crosby, Texas
Project No. 81-250
DATE 9/3/81

BORING NO	DEPTH IN FEET	TYPE OF MATERIAL	MOISTURE CONTENT %	DRY DENSITY pcf	ATTERBERG LIMITS LL	PL	PI	COMPRESSION TEST: COMPRESSION tsf	STRAIN %	LATERAL PRESSURE psf	Specific Gravity	OTHER TESTS: Permeability cm/sec
2	2-4	Stiff gray and light gray clay with ferrous nodules, slightly silty (fill)	25	96	54	20	34				2.63	1.1 x 10^{-8}
	8-10	Stiff dark gray and gray clay with ferrous nodules and roots, slightly silty	25	95	60	19	41				2.65	8.- x 10^{-9}
	12-14	Plastic light gray and tan clay with ferrous and calcareous nodules slightly silty	27	98	54	18	36				2.65	
	18-20	Stiff tan and light gray silty clay with silt pockets, clay pockets, and calcareous nodules	23	101	43	17	26				2.63	3.- x 10^{-8}
	23-25	Stiff tan and light gray clay, slickensided, fragmented	36	91	75	22	53				2.63	
	28-30	Stiff tan and light gray clay with calcareous nodules, slickensided	25	103	71	21	50				2.76	
	33-35	Very stiff tan and light gray clay slickensided, fragmented	30	95	78	22	56				2.66	
	38-40	Stiff tan and light gray clay, slickensided	31	93	77	24	53				2.71	

SOUTHWESTERN LABORATORIES

SUMMARY OF LABORATORY TEST DATA

PROJECT Holding Ponds, Lucidol Plant, Crosby, Texas
Project No. 81-250
DATE 9/3/81

BORING NO	DEPTH IN FEET	TYPE OF MATERIAL	MOISTURE CONTENT %	DRY DENSITY pcf	ATTERBERG LIMITS LL	PL	PI	COMPRESSION TEST: COMPRESSION tsf	STRAIN %	LATERAL PRESSURE psi	Specific Gravity	OTHER TESTS: Permeability cm/sec
3	0-2	Stiff dark gray, light gray and tan clay, slightly silty	25	97	55	18	37				2.68	
	2-4	Plastic dark gray, gray and tan clay with ferrous nodules	31	88								1.0×10^{-8}
	6-8	Soft dark gray clay with roots, slightly silty	30	88	57	18	39				2.66	
	8-10	Plastic dark gray clay with roots, slightly silty	27	98								5.9×10^{-9}
	14-16	Stiff light gray and tan clay with ferrous and calcareous nodules, slightly silty	22	103	52	19	33				2.66	
	18-20	Stiff tan and light gray clay with calcareous nodules, slickensided	24	97								4.4×10^{-9}
	23-25	Stiff tan and light gray clay, slickensided, fragmented	32	93	76	21	55				2.66	
	28-30	Very stiff tan and light gray clay with calcareous nodules, slickensided	24	101	65	19	46				2.70	
	33-35	Stiff tan and light gray clay, slickensided	33	89	79	21	58				2.68	
	38-40	Stiff tan and light gray clay, slickensided, fragmented	30	92	85	23	62				2.62	

CHEMICAL ANALYSIS

Sample	Chlorides, mg/kg
Boring No. 1	
2 - 4	559
4 - 6	976
10 - 12	479
18 - 20	622
Boring No. 2	
0 - 2	109
4 - 6	1026
12 - 14	111
18 - 20	37.5
Boring No. 3	
2 - 4	762
6 - 8	784
10 - 12	369
18 - 20	92.2

LOG OF BORING -1

PROJECT: Bolding Ponds, Euclid Plant, Crosby, Texas
Project No. 81-250

DATE: 8/25/81 TYPE: LOCATION: See Boring Plan

▼ WATER ▮ SAMPLE ⊠ STANDARD PENETRATION

DEPTH, FEET	SYMBOL	SAMPLES	BLOWS PER FT	DESCRIPTION
				SURFACE ELEVATION: Existing Grade
0				Fill: Hard dark gray clay - becoming tan sandy clay at 1 foot - becoming gray clay with sand seams and calcareous nodules at 2 feet
5				Plastic dark gray silty clay
10				Stiff tan and gray clay, very calcareous
15				Stiff tan and light gray silty clay ▼
20				
25				
30				- without silt or calcareous nodules below 33 feet
35				
40				Boring Terminated at 40 feet

SOUTHWESTERN LABORATORIES

LOG OF BORING B-2

PROJECT: Holding Ponds, Euclid Plant, Crosby, Texas
Project No. 81-250

DATE: 8/25/81 TYPE: LOCATION See Boring Plan

▼ WATER ▮ SAMPLE ⊠ STANDARD PENETRATION

DEPTH, FEET	SYMBOL	SAMPLES	BLOWS PER FT.	DESCRIPTION
				SURFACE ELEVATION: Existing Grade
0				Fill: Hard tan sandy silt - becoming stiff gray clay at 2 feet
5				Stiff gray silty clay
10				Stiff gray clay - color change to gray and tan with ferrous and calcareous nodules at 12 feet
15				
20				Stiff tan and light gray silty clay ▼
25				Very stiff tan and light gray clay, slickensided
30				
35				
40				Boring Terminated at 40 feet

SOUTHWESTERN LABORATORIES

LOG OF BORIN 3-3

PROJECT: Holding Ponds, Euclid Plant, Crosby, Texas
Project No. 81-250

DATE: 8/25/81 TYPE: LOCATION: See Boring Plan

▼ WATER ▮ SAMPLE ⊠ STANDARD PENETRATION

DEPTH, FEET	SYMBOL	SAMPLES	BLOWS PER F.	DESCRIPTION
				SURFACE ELEVATION: Existing Grade
0				Fill: Stiff dark gray clay - becoming plastic at 2 feet
5				
10				Plastic dark gray clay - color change to gray and tan 12 feet
15				Stiff tan and light gray clay with calcareous nodules - with sand layer at 16 to 18 feet
20				
25				▼ Very stiff brown clay, slickensided
30				
35				
40				Boring Terminated at 40 feet

TEXAS DEPARTMENT OF WATER RESOURCES
Industrial Solid Waste Disposal TSD Facility Review
District No. 7

Ground Water Monitoring (gm):
Required [illegible]
Not Required
Comments: [illegible]

Texas Permit/Reg. No. 2[illegible]
EPA I.D. No. TXD [illegible]
Part "A" Application
State No. [illegible]
Fed. 3510 Yes ✓ No

Site Operator Information:

Name of Company [illegible]
Site Address [illegible]
Interim Status: Yes No Comments:
Hazardous Facilities (circle): Landfill ___, Landfarm ___, Surface Impoundment ___, Incin. ___, Tank ✓, Waste Pile ___, Containers ✓

Type of Industry [illegible]

Indicate below classes of waste managed (Hazardous-H, Class I nonhazardous-NH, Class II-III)

Generator H/NH/II Transporter ___ Small Quantity Generator ___

Treatment H/NH Disposal H/II Storage ___; 90 Day Exemption ___

Site Information (T.S.D. facilities only)

1. Are facilities indicated on Registration? Yes ___ No ___; Part "A": Yes ___ No ___
2. Describe waste (Haz) in gm fac. Cyanides
3. Closed or abandoned facilities [illegible]

Inspection Information (most recent compliance monitoring inspection):

1. Inspector's Name [illegible]
2. Inspection Date 4-7-82
3. Inspection Results: Site for which gm (has) or (should have) been installed:

a. Quarterly reports submitted: Yes ___ No ___
b. Annual reports: Yes ___ No ___
c. Analyzed for drinking water stds: Yes ___ No ___
d. Analyzed for ground water quality par: Yes ___ No ___
e. Analyzed for ground water cont par: Yes ___ No ___

Authentication of this review: Signed [illegible] Date 4/12/85

compliant with all other criteria. - dum priority for groundwater monitoring. Dwight Russell 6/27/83

OPEN DUMP INVENTORY FACILITY EVALUATION SUMMARY

I. Instructions

1. Prior to inspection, review registration file for general information.

2. During inspection indicate "N/A" at the end of any question not applicable to existing conditions.

3. Indicate "Unknown" if a pertinent question cannot be comfortably answered.

4. Relevant notations are encouraged but not required.

5. Consult the EPA Classification Guidance Manual (blue notebook) to clarify unclear questions.

6. After inspection, review file to complete form as necessary. Any discrepancy between information in file and existing conditions should be noted on this form.

II. General Company Information

A. Registration/Permit No. 30458

B. Company Name and Mailing Address

Name Pennwalt Corp.

Street/Road P.O. Drawer 810

City, State, Zip Code Crosby, TX 77532

County Harris

C. Plant Location

Street/Road 18000 Crosby-Eastgate Road

City, State, Zip Code Crosby, TX 77532

County Harris

Site Coordinates: Latitude 29°57'00"

Longitude 95°01'30"

D. Plant Manager/Operator

Name William L. Conally

Title Plant Manager

Telephone # (713) 328-3561

III. General Facility Information

A. Registration/Permit No. 30458

B. Sequence No. 01 Type of Facility (landfill, lagoon, etc.) Lagoon/Pond

C. Facility Manager/Operator (if different from II.D.)

Name Same as II.D.

Title _____

Telephone # _____

D. Surface Area of Facility 1.8 acres

E. Capacity of Facility 25,000 cubic yds.

F. Classification of waste disposed I

G. Description of wastes being managed at the facility.
(Including waste sequence number from Notice of Registration)
Waste No. 001, process wastewater, and Waste No. 007, cyanide-bearing waste (cyanide is destroyed before the waste is discharged into the lagoon) are discharged into Facility No. 01, a lagoon/pond. The pond is periodically taken out of service and the supernatant decanted. Fly ash is added to the settled sludge, and the mixture is compacted. A clay liner is placed on top of the compacted sludge prior to further use.

H. Is facility used for disposal of wastes above grade? no

I. Date facility opened 1970

J. Status of facility: active (X)

inactive ( ) effective date _____

closed ( ) effective date _____

K. Has facility been deed-recorded? no

L. Other pertinent observations:

Inspected by: Philip S. Liang

Date Inspected: 12/17/82

Accompanied by:

To Be Completed By TDWR

Chapter

AIR

Criterion Compliance Decision

☐ Complies

☐ Does Not Comply

1. Is open burning of solid wastes practiced at the facility?

☐ YES (Continue to 2)

- ☐ Records of previous open burning
- ☐ Visual observation of open burning
- ☐ Physical evidence of previous open burning

☒ NO (COMPLIES)

- ☒ Facility is a surface impoundment and does not open burn wastes
- ☐ Facility is a landspreading operation and does not open burn wastes
- ☐ Landfill which does not open burn

2. Are residential, commercial, institutional, or industrial solid wastes open burned at the facility?

☐ YES (Does not comply)

- ☐ Records of previous open burning
- ☐ Visual observation of open burning
- ☐ Physical evidence of previous open burning

☐ NO (Continue to 3)

3. Are landclearing debris, diseased trees, debris from emergency clean-up operations, silvicultural and agricultural wastes, or ordnance open burned at the facility?

☐ YES (Continue to 4)

- ☐ Records of previous burning
- ☐ Visual observation of open burning
- ☐ Physical evidence of previous open burning

☐ NO (COMPLIES)

4. Does the facility control air emissions in accordance with the State Implementation Plan (SIP) approved or promulgated by the administrator pursuant to Section 110 of the Clean Air Act?

☐ YES (COMPLIES)

- ☐ Opinion given by State agency managing the SIP
- ☐ Variances or permits under SIP examined
- ☐ Visual observations of open burning comply with SIP

☐ NO (Does not comply)

To Be Completed By TDNR
Chapter 2(a)
SAFETY - EXPLOSIVES GASES
Criterion Compliance Decision
☐ Complies
☐ Does not Comply

1. Is methane generated?

☐ YES (Continue to 2)

- ☐ Landfill with organic waste
- ☐ Surface impoundment generating methane

☒ NO (COMPLIES)

- ☐ Landfill with no organic waste
- ☐ Landfill less than one year old
- ☒ Surface impoundment with no organic waste
- ☐ Landspreading operations

2. Is methane prevented from migrating beyond the property boundary or from accumulating in facility structures?

☐ YES (COMPLIES)

- ☐ No adjacent facility structures
- ☐ Facility located on impervious rock
- ☐ Facility located on saturated soil or surrounded by surface water
- ☐ Facility with gas venting or recovery systems
- ☐ Facility with recent monitoring records showing no migration

☐ NO (Does not comply - continue to 3)

3. Do the concentrations of methane, as determined by monitoring, exceed 25 percent of the LEL in facility structures or the LEL at the property boundary?

☐ YES (Does not comply)

☐ NO (COMPLIES)

To Be Completed By TDNR
Chapter 241
SAFETY - FIRES
Criterion Compliance Decision
☐ Complies
☐ Does Not Comply

1. Does the facility have the potential for fire occurrence?

☐ YES (Continue to 2)

☒ NO (COMPLIES)

☒ Facility receives only nonflammable, noncombustible wastes
☐ Other _____

2. Is periodic cover material applied so as to reduce the risk of fire?

☐ YES (COMPLIES)

☐ The facility applies and compacts cover over combustible solid waste at the end of the operating day
☐ The facility applies and compacts cover at least once every 24 hours
☐ The facility incorporates all waste into the soil at the end of the operating day

☐ NO (Continue to 3)

3. Does the facility have adequate operating procedures to control fires should they occur?

☐ YES (COMPLIES)

☐ Landfill minimizes fire hazards by proper operating procedures:

___ High frequency of spreading and compacting all combustible wastes
___ Waste materials with high fire potential are unloaded a safe distance from the working face
___ Unloading of wastes adequately supervised
___ Hot or burning loads are extinguished with water or soil before incorporating into the fill
___ Earth stockpiles are located near the working face
___ Water supply under sufficient pressure is available at the working face
___ Fire extinguishers present on all equipment and buildings
___ Arrangements are established with local fire fighting departments
___ On-site availability of heavy equipment to extinguish fires
___ Firebreaks, fire lanes are present

(The following answer from file review)

___ Previous inspections and reports indicate no problem
___ Permit conditions are being followed (for a fire protection plan)
___ No complaints have been made
___ Records of local fire department indicate no citations have been given

Chapter 4(b)
SAFETY - FIRES
(Continued)

☐ Surface impoundment minimizes fire hazards by proper handling and storage of liquid wastes:

- ☐ Wastes are mixed to reduce flammability
- ☐ Suitable fire extinguishing equipment is present
- ☐ Established arrangements with local fire department or trained on-site personnel
- ☐ Wastes can be rapidly drained or waste flow can be controlled
- ☐ Waste can be isolated
- ☐ Impoundment is readily accessible by fire-fighting equipment

☐ Landspreading facility minimizes fire hazards by proper operating procedures:

- ☐ Suitable fire-fighting equipment is available
- ☐ Established arrangements with local fire department
- ☐ Facility is readily accessible by firefighting equipment

☐ NO (Does not comply)

To Be Completed By TDWR
Chapter 2(c)
SAFETY - BIRD HAZARDS TO AIRCRAFT
Criterion Compliance Decision
☐ Complies
☐ Does Not Comply

1. Does the facility receive putrescible waste?

☐ YES (Continue to 2)

- ☐ Food waste
- ☐ Sewage sludge, septic tank pumpings
- ☐ Animal manures
- ☐ Animal carcasses
- ☐ Others

☒ NO (COMPLIES)

2. Is the disposal facility within the specified distances of a public-use airport?

☐ YES (Continue to 3)

- ☐ 10,000 feet from any airport runway used by turbojet aircraft
- ☐ 5,000 feet from any airport runway used by piston-type aircraft

☐ NO (COMPLIES)

3. Does the facility pose a bird hazard to aircraft?

☐ YES (Does not comply)

- ☐ Bird populations at the facility are greater than natural populations in the area
- ☐ Facility attracts birds
- ☐ There is a bird hazard at the airport from areas outside the airport
- ☐ Flight patterns of the birds show that birds do fly from the disposal facility to the airport area

☐ NO (COMPLIES)

- ☐ Bird populations at the facility are less than or equal to the natural populations in the area
- ☐ Facility does not attract birds
- ☐ Bird attraction is due to the airport facility
- ☐ Flight patterns of birds show that they do not fly from the disposal facility to the airport

To Be Completed By TDWR
Chapter 2(d)
SAFETY - ACCESS
Criterion Compliance Decision
☐ Complies
☐ Does Not Comply

1. Is access of unauthorized persons into the facility controlled?

☒ YES (COMPLIES)

Natural controls:
- ☐ Trees and hedges
- ☐ Berms and ditches
- ☐ Cliffs and ravines
- ☐ Remoteness

Artificial controls:
- ☒ Gates
- ☒ Fences

☐ NO (Does not comply) (Continue to 2)

2. Are authorized persons controlled within the facility so as to not expose them to potential health and safety hazards?

☐ YES (COMPLIES)

- ☐ Supervision of the unloading area
- ☐ Adequate lighting
- ☐ Posting information and direct signs
- ☐ Prohibition of scavenging
- ☐ Control of salvaging
- ☐ Trafficable roadways
- ☐ Alternate discharge point
- ☐ Other _____

☐ NO (Does not comply)

To Be Completed By TDWR
Chapter 3
SURFACE WATER
Criterion Compliance Decision
☐ Complies
☐ Does Not Comply

1. Is there a point source discharge of pollutants to waters of the United States?

☐ YES (Continue to 2)

___ Facility has a Section 402 (NPDES) permit
___ Landfill with a discharge from a leachate collection system
___ Landfill with a discharge from an on-site leachate treatment system
___ Landfill with a direct discharge of solid waste into waters of the U.S.
___ Surface impoundment with a discharge from a pipe or outfall
___ Surface impoundment with a discharge from an eroded channel
___ Surface impoundment with a discharge from a spillway structure
___ Surface impoundment located in waters of the U.S.
___ Landspreading operations with a discharge from an outfall pipe, or channel that drains the landspreading area where the waste is not incorporated into the soil
___ Landspreading operations located near waters of the U.S. where waste is not applied for enchancement of vegetative growth

☒ X (Go to 5)

2. Is there a discharge of dredged material or fill material to waters of the U.S.?

☐ YES (Continue to 3)

☐ X (Go to 4)

3. Does the facility violate requirements established pursuant to Section 404 of the Clean Water Act?

☐ YES (Does not comply - continue to 5)

___ 404 permit, but is in violation of that permit
___ Facility is in need of a permit and has not applied for a 404 permit

☒ X (Continue to 5)

___ Facility operates in compliance with its 404 permit
___ Facility has applied for a 404 permit

X Deep well injection

4. Does the facility violate requirements for NPDES permits established pursuant to Section 402 of the Clean Water Act?

☐ YES (Does not comply)

___ Facility has a 402 permit, but is in violation of that permit
___ Facility has not applied for a 402 permit.

☐ NO (Continue to 5)

___ Facility operates according to 402 permit requirements

5. Is there a nonpoint source discharge from the facility?

☐ YES (Continue to 6)

___ Surface impoundment with spillover, overtopping, or leakage
___ Other _____

☒ NO (Continue to 6)

___ Landfill or landspreading facility that totally contains runoff or other water
X Other Deep well injection

6. Does the facility cause nonpoint source polluting of the waters of the U.S. that violates applicable legal requirements implementing an areawide or Statewide water quality management plan that has been developed and approved by the Administrator under Section 208 of the Clean Water Act, as amended?

☒ NO (COMPLIES)

___ Facility not in an area with an approved 208 plan
___ Facility in an area with an approved 208 plan and complies with all applicable requirements
X No 208 requirements have been placed on the facility

☐ YES (Does not comply)

To Be Completed By TDWR
Chapter 4
GROUND WATER
Criterion Compliance Decision
☐ Complies
☐ Does Not Comply

1. Does ground water contain more than 10,000 mg/l TDS, and is it not being used as a human drinking water source?

☐ YES (COMPLIES)

- ☐ Ground water has more than 10,000 mg/l TDS, TDS = _____ and is not used as a human drinking water source
- ☐ Ground water is not present in usable quantities beneath the site

☒ NO (Continue to 2)

- ☐ Ground water has less than 10,000 mg/l TDS
- ☒ Ground water is being used as a drinking water source
- ☐ Ground water is not being used as a drinking water source

2. Has an underground drinking water source been contaminated by the facility?

☐ YES (Does not comply)

- ☐ Monitoring shows contamination of a drinking water source
- ☐ Contaminating substances and concentrations _____

☒ NO(COMPLIES)

- ☐ Facility does not overlie a drinking water source
- ☒ Monitoring shows no contamination beyond the solid waste boundary (or alternate)

☐ Not determined

Facility does not have monitor wells. DCR

To Be Completed by TDWR
Chapter 5
ENDANGERED SPECIES
Criterion Compliance Decision
☐ Complies
☐ Does Not Comply

1. Is the facility within a critical habitat or an area where endangered or threatened species range?

☒ YES. (Continue to 2)

☐ NO (COMPLIES)

2. Has there been an assessment to determine if the facility has destroyed or adversely changed the critical habitat or contributes to the taking of any endangered or threatened species of plants, fish, or wildlife?

☒ YES (COMPLIES)

- ☐ Facility has passed assessment made by OES or other Federal agency
- ☐ Facility has an individual 404 Permit with an assessment section
- ☐ Facility has passed evaluation as a result of settlement made to prevent adverse impact
- ☐ Nearby assessments have indicated comparable situation at facility is not a problem

☐ NO (Continue to 3)

3. Does the facilities presence result in the destruction or adverse modification of the critical habitat?

Factors to consider:
Type of critical habitat
Size of critical habitat
Sensitivity of critical habitat to adverse impacts
Critical habitat species characteristics
Proximity of facility to critical habitat
Facility design and operational characteristics

☐ YES (Does not comply - Continue to 4)

☐ NO (Continue to 4)

To Be Completed By TDWR
Chapter 5
ENDANGERED SPECIES
(Continued)

4. Does the facility cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife?

Factors to consider:
Type of species and species habitat
Species characteristics
Sensitivity of species and species habitat to adverse impacts
Facility size, design, and operational characteristics

Adverse impacts to consider:
Harrassing, harming, pursuing, hunting, wounding, killing, trapping, capturing, or collecting species (direct violation of ESA, does not comply)
Adverse modification or loss of habitat (including air & water pollution)
Infringement on breeding, nesting, and feeding activities
Interference with species movement

☐ YES (Does not comply)

☐ NO (COMPLIES)

Endangered species found in Harris County include:
1. Bald Eagle (wintering area)
2. Attwater's Prairie Chicken
3. American Alligator

To Be Completed by TDWR
Chapter 6(a)
DISEASE: VECTORS
Criterion Compliance Decision
☐ Complies
☐ Does Not Comply

1. Is the facility a potential breeding ground for rodents, flies, or mosquitoes which poses a threat to public health?

☐ YES (Continue to 2)

☒ NO (COMPLIES)

2. Does the facility minimize the on-site population of disease vectors through the periodic application of cover material or other techniques as appropriate so as to protect public health?

☐ YES (COMPLIES)

☐ Facility applies daily cover
Facility practices other techniques:
- ☐ Repellents
- ☐ Insecticides or rodenticides
- ☐ Composting or processing
- ☐ Predatory or reproductive control
- ☐ Other _____

☐ NO (Does not comply)

Comment _____

To Be Completed By TEAM
Chapter 6(b)

SEWAGE SLUDGE AND SEPTIC TANK PUMPINGS

Criterion Compliance Decision

☐ Complies

☐ Does Not Comply

1. Are sewage sludge or septic tank pumpings applied to the surface of the land or incorporated into the soil?

☐ YES (Continue to 2)

☒ NO (COMPLIES)

☐ Facility is a trenching or burial operation
☒ Facility receives no sewage sludge or septic tank pumpings.

2. Are crops planted for human consumption within 18 months after application of waste?

☐ YES (Continue to 3)

☐ Crops grown at time of inventory are for human consumption
☐ Information from operating plan
☐ Past usage or crops in the vicinity
☐ Information from facility owner/operator

☐ NO (Continue to 5)

3. Does the waste contact the food portion of the crop?

☐ YES (Continue to 4)

☐ Direct application or rainfall splash
☐ Crops with food portion close to the ground
☐ Taller crops that receive application early in growing stage

☐ NO (Continue to 6)

4. Is the waste treated by a process to further reduce pathogens?

☐ YES (COMPLIES)

☐ Verification of acceptable process from appropriate source
Source used _____

☐ NO (Does not comply - continue to 5)

☐ Verification cannot be made

To Be Completed By TDWR

Chapter 7

APPLICATION TO LAND USED FOR THE PRODUCTION OF FOOD CHAIN CROPS

Criterion Compliance Decision

☐ Complies

☐ Does Not Comply

1. Is solid waste injected, spread or plowed into land used for food chain crops?

☐ YES (Continue to 2)

☒ NO (COMPLIES)

___ The land is not used for the production of food chain crops
__X__ Facility is a surface impoundment
___ Facility is a landfill

2. Is the cadmium concentration in the waste less than 2 mg/kg?

mg/kg = cadmium concentration _____

☐ YES (Continue to 4)

☐ NO (Continue to 3)

3. Is the pH of the soil/waste mixture 6.5 or greater at the time of application?

☐ YES (Continue to 4)

☐ NO (Does not comply)

4. Is the annual application rate of cadmium in excess of 2 kg/ha for food chain crops used for human consumption?

kg/ha/yr cadmium application rate _____ (see Figure 7-3)

☐ YES (Does not comply)

☐ NO (Continue to 5)

5. If waste is applied to land used for the production of tobacco, leafy vegetables or root crops for human consumption, is the cadmium loading rate less than 0.5 kg/ha/yr?

Crop grown _____

☐ YES (Continue to 6)

___ Land is not used for production of these crops
___ Cadmium loading is less than 0.5 kg/ha/yr

☐ NO (Does not comply)

To Be Completed By TDNR
Chapter 8
FLOODPLAINS
Criterion Compliance Decision
☐ Complies
☐ Does Not Comply

1. Is the solid waste applied to the land surface and incorporated into the soil at such a frequency that it is not subject to washout?

☐ YES (Complies)

- ☐ Waste incorporated into the soil in accordance with requirements of Section 257.3-5
- ☐ Waste used as a soil conditioner or fertilizer
- ☐ Disposal area being used (or will be used next season) for vegetation

☒ NO (Continue to 2)

2. Is the facility located in the 100-year floodplain?

☐ YES (Continue to 3) (Provide copy of floodplain map with unit location)

- ☐ Stated in permit or operation applications
- ☐ State floodplain designation
- ☐ Federal floodplain designation: Agency_____
- ☐ Interpolation between two known points in the 100-year floodplain
- ☐ Computations of flood flow and flood level

☒ NO (Complies, Floodplain map is attached

3. Does the facility restrict the flow of the base flood or reduce the temporary water storage capacity so as to pose a hazard to human life, wildlife, or land or water resources?

Special cases:

Facility located in a state where equivalent review or permit procedures have considered flood alteration impacts
Facility has a 404 permit with an equivalent flood hazard assessment section and is in compliance with the permit
Facility has filled floodplain or is diked up to or above base flood level
Facility is below floodplain grade

Facility located in a floodplain where the channel is diked to contain the base flood
Facility increases base flood level more than 1.0 foot

Factors considered in flood hazard potential assessment:

Base Flood characteristics
Floodplain topography
Floodplain hydrogeology
Facility characteristics
Natural resources in and adjacent to the floodplain
Land use in and adjacent to the floodplain

☐ YES (Does not comply – continue to 4)

☐ NO (Continue to 4)

4. Is the facility protected from washout by the base flood so as not to pose a hazard to human life, wildlife, or land or water resources?

Factors considered for washout protection:

Types and Efficiency Protection:
— Dike or levee
— Berm
— Flexible linings
— Vegetative cover
— Riprap
— Diversion of surface flow
— Change in soil matrix
— Flood flow velocity
— Other
— None

☐ YES (Complies)

— State washout assessment or 404 permit
— Site analysis of washout protection

☐ NO (Does not comply)

— Washout by flood of lesser magnitude than the 100-year flood
— Site analysis of washout protection

Permian Corp.
50458

TDWR OPEN DUMP INVENTORY

SUPPLEMENTARY FACILITY EVALUATION

1. Hazardous Waste Information:

EPA ID No. TXD 043750512

Generator	Yes X	No ___
Small-Quantity Generator	Yes ___	No X
Transporter	Yes X	No ___

If yes, state method(s) 1. company-owned truck, 2. contractor

Treater, Storer, Disposer	Yes ___	No X

2. Verification of TDWR Solid Waste Registration

a. Determine accuracy and completeness of entire computerized registration.

General Information – state any inaccuracies or additions:

Generating site location should be:
18000 Crosby-Eastgate Road
Crosby, TX 77532

b. Description of Waste Generating Activities – list any inaccuracies or additional SIC code(s) (if known) and manufacturing processes:

Waste No. 002 is incorrectly listed as phosphoric acid (H_3PO_4). It should be phosphorous acid (H_3PO_3).

c. Solid Waste Generation Summary

i. State any inaccuracies:

Waste No. 005, amine solids, is no longer generated.

ii. Are any additional wastes generated? If so, complete information in this section for each additional waste.

No.

d. Solid Waste Management Facilities Summary

i. State any inaccuracies: 1. Waste No. 002, phosphorous acid, is now sold as a by-product.; 2. Facility No. 03, a storage tank, stores Wastes Nos. 002, 003, + 007.; 3. Facility No. 04, drum storage area, stores Waste 004.; 4. Facility No. 05, an impoundment basin, stores Waste No. 001.

ii. Are any facilities not listed in this section? If so, complete information in Part III - General Facility Information of the ODI Evaluation Summary-for additional facilities.

The single lagoon/pond listed on this registration is actually four separate ponds.

TDWR OPEN DUMP INVENTORY

Inspector's Comments
Pennwalt Corp.
TDWR Reg. No. 30458
Inspected 12/17/82

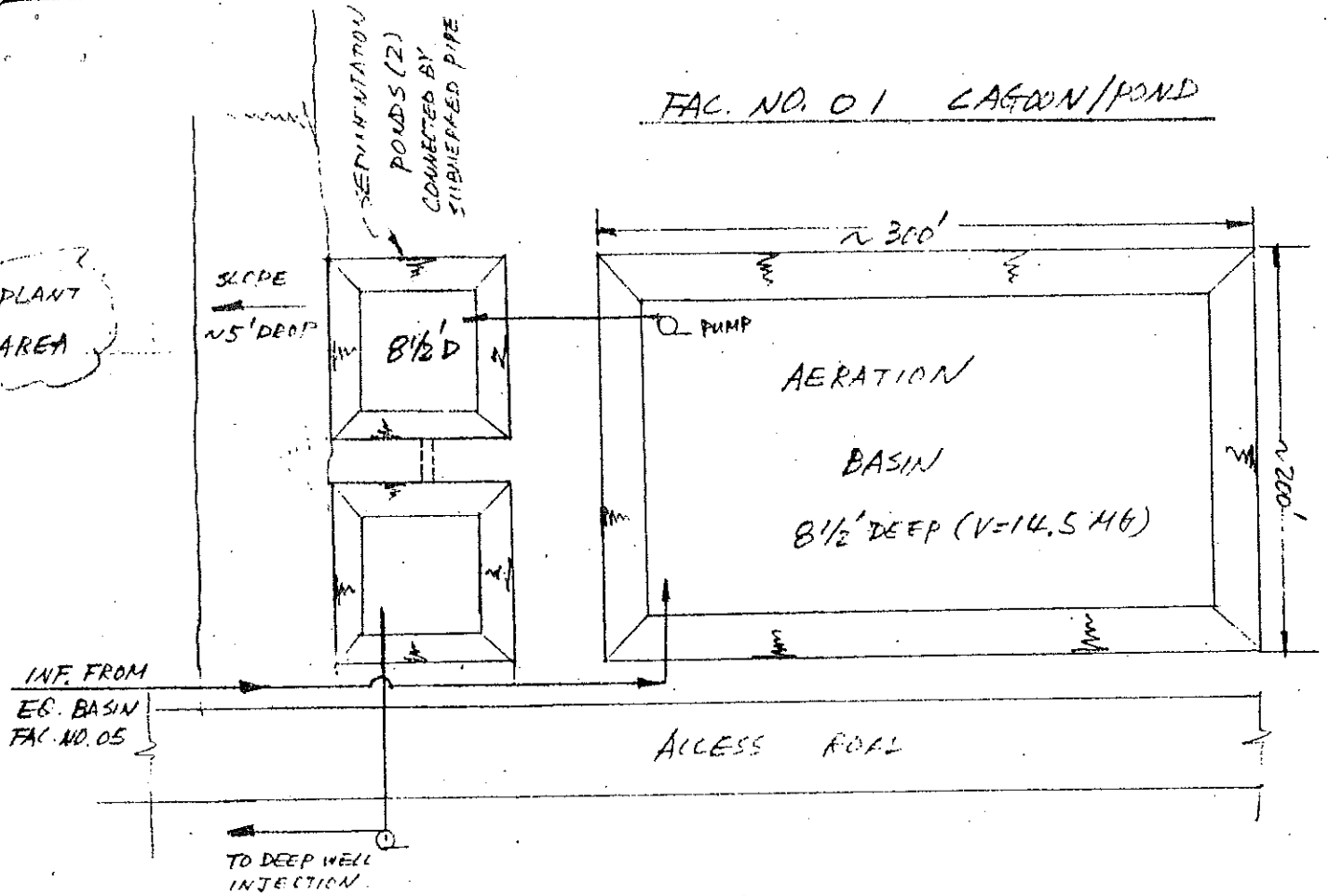
An inspection of Pennwalt Corporation's solid waste management facility No. 01, a lagoon/pond, was conducted on December 17, 1982 by Philip S. Liang of Engineering-Science as part of TDWR's Open Dump Inventory program.

The facility registered as No. 01, a lagoon/pond, actually consists of four separate ponds, including one surge basin, one aeration basin, and two settling ponds. Since the capacity of the aeration basin has proven to be sufficient to accommodate even heavy loading rates, the surge basin has been taken out of operation. The two settling ponds are hydraulically interconnected.

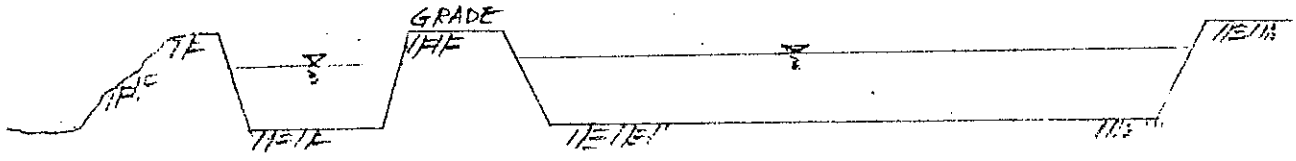
Waste No. 001, process wastewater, is discharged to the equalization basin (Facility No. 05). Waste No. 007, cyanide-bearing waste, is discharged to a storage tank (Facility No. 03) in which the cyanide is treated by chlorination. The two streams are then combined and transferred to the aeration basin. The stream is then pumped to the settling ponds, in which the solids settle out. The supernatant is then sent to deep well injection.

As each pond fills with sludge, it is taken out of service and the supernatant is pumped off. The sludge is mixed with fly ash and then compacted, and a new clay liner is placed on top of the compacted mixture. This occurs approximately once every two years for each pond.

FAC. NO. 01 LAGOON/POND



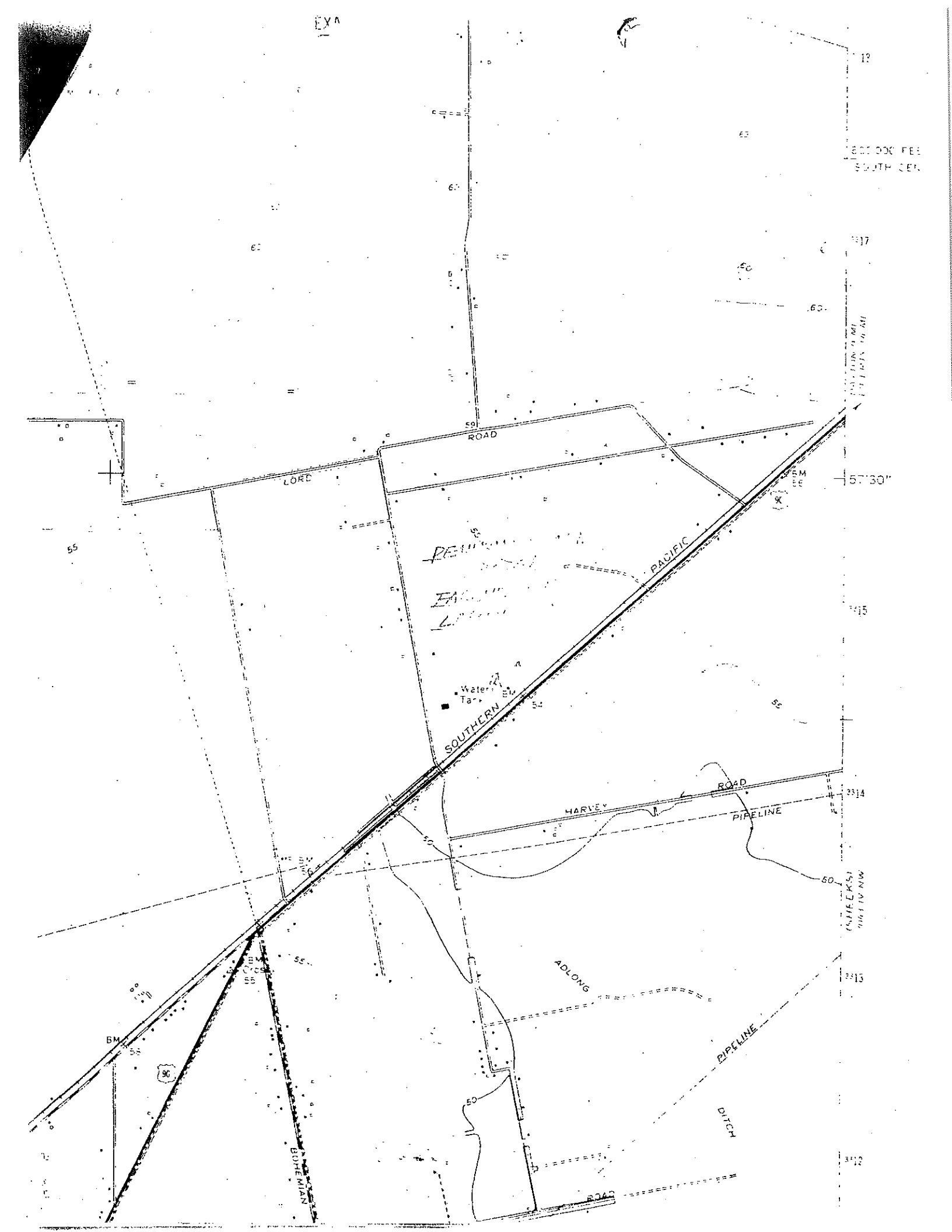
PLAN VIEW
PENNWALT CORP. (30458)
N.T.S.

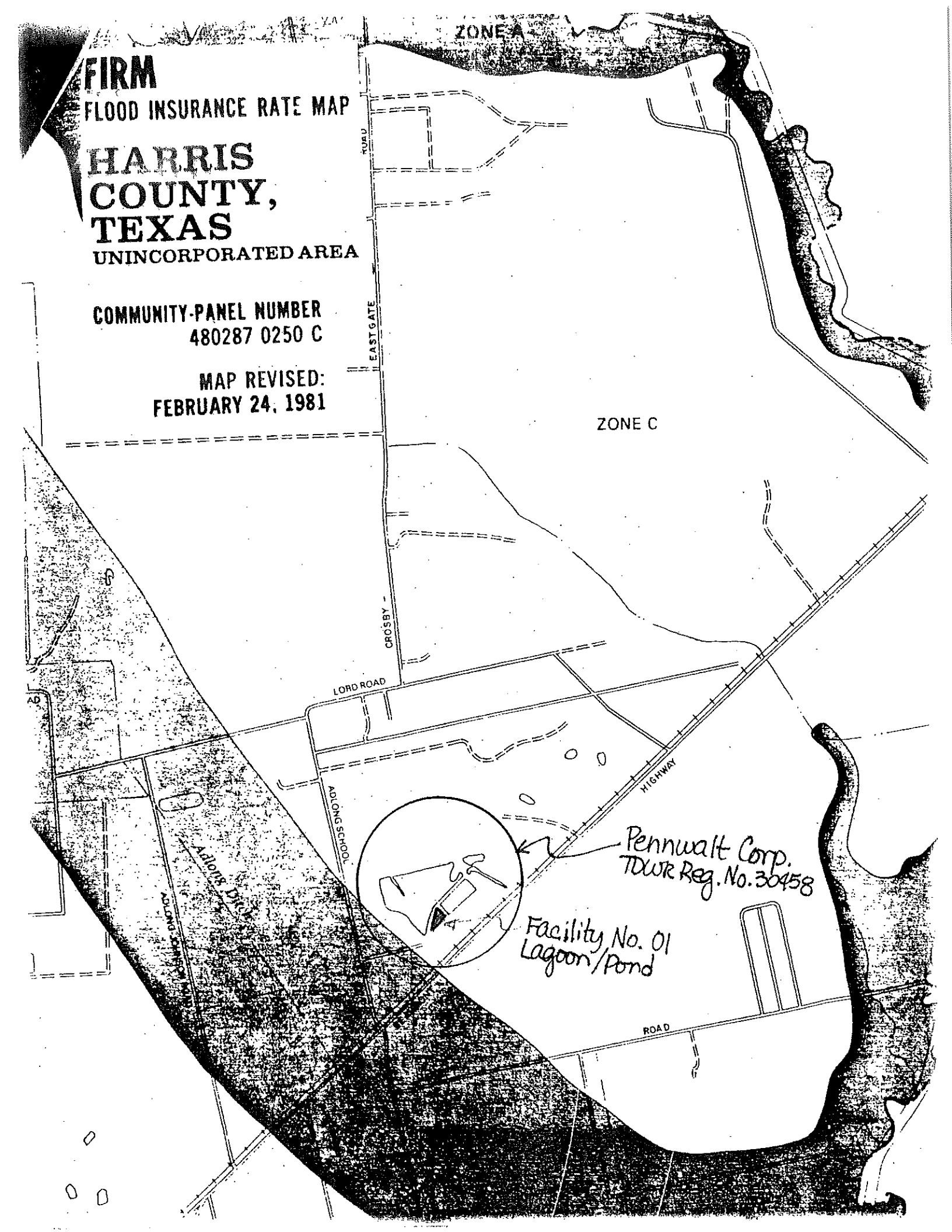


CROSS SECTION
N.T.S.

ENGINEERING-SCIENCE
16915 EL CAMINO REAL
HOUSTON TEXAS 77058
713 486 7944

PROJECT TDWR OPEN DUMP JOB NO 2699
DETAIL INSPECTION
DATE 12/17/82
BY KCL
SHT
OF


ROAD
LORD
PACIFIC
SOUTHERN
ROAD
HARVEY
PIPELINE
ADLONG
PIPELINE
DITCH
BOHEMIAN
ROAD
BM
99
57'30"


FIRM
FLOOD INSURANCE RATE MAP
HARRIS COUNTY, TEXAS
UNINCORPORATED AREA
COMMUNITY-PANEL NUMBER
480287 0250 C
MAP REVISED:
FEBRUARY 24, 1981
ZONE A
ZONE C
EAST GATE
CROSBY
LORD ROAD
ADLONG SCHOOL
HIGHWAY
ROAD
Pennwalt Corp.
TDWR Reg. No. 30458
Facility No. 01
Lagoon/Pond

RCRA File TXD043750511
TECHNICAL

elf atochem
ATO

Elf Atochem North America, Inc.
18000 Crosby Eastgate Road, Crosby, Texas 77532
Phone: (281) 328-3561, 1(800) 526-5544
Fax: (281) 328-4052

October 1, 1997

Jane Saginaw
Regional Administrator
United States Environmental Protection Agency
Region VI
1445 Ross Avenue, Ste 1200
Dallas, TX 75202

Re: Elf Atochem North America, Inc., Crosby, TX Facility
Notification of Application of Administrative Stay Pursuant to 40 CFR §265.1080(d)(3)

Dear Ms. Saginaw:

Pursuant to 40 CFR Part 265.1080(d)(3) this is to advise you that the Elf Atochem North America, Inc. ("Elf Atochem") Crosby, TX facility wastewater treatment system meets the requirements of the Administrative Stay published at 40 CFR §265.1080(d). The Crosby, TX facility is a manufacturer of a variety of organic peroxides which are used in the plastics and allied industries. This facility is located at 18000 Crosby Eastgate Road, Crosby, TX 77532.

The Crosby facility consists of three operating units which produce either more than one functional family of organic peroxides or multiple organic peroxides from one functional family. The continuous perester plant produces four large volume products. The batch production facility produces approximately thirty different products. The third unit consists of both continuous and batch operations; this unit produces new products to the facility, as well as provides continuous production of products also generated by the batch unit. Approximately 99 % of the products manufactured by the three process units are organic peroxides. One or more of these organic peroxides could potentially undergo self-accelerating thermal decomposition at or below ambient temperatures.

The facility generates wastewater from three process units which consists primarily of an aqueous waste stream that contains low levels of dissolved organic species and may include a small amount of floating organic phase material. The characteristics of the process wastewater are highly variable, due in large measure to the variety of products manufactured at the facility.

The Crosby facility recently completed construction of a new wastewater treatment system consisting of a series of above ground treatment and/or storage units which handle the wastewater prior to final disposal in one of two permitted Class I non-hazardous underground injection wells. During design of the system, the facility evaluated installing and operating the air emission controls specified in 40 CFR §§265.1085 through 265.1088 on the tanks handling the wastewater with a potential VOC concentration of 500 ppmw. Elf Atochem determined that such operation would pose an unacceptable risk of explosive decomposition and potential catastrophic failure of the tanks. Documentation in accordance with the requirements of §265.1090(i) explaining why an undue safety hazard would be created if the Subpart CC air emission controls were to be operated on the tanks handling wastewater with a VOC concentration of greater than 500 ppmw is being maintained in the facility files.

If you have any questions or require further information, please feel free to contact Connie Harrison, Environmental Manager of the Crosby, TX facility (281/328-9430) or myself (281/328-3561).

Sincerely,

ELF ATOCHEM NORTH AMERICA, INC.
Fine Chemicals

John T Voltz
Plant Manager

cc: Allyn M. Davis, Director
Multimedia Planning & Permitting Division,
USEPA Region VI
1445 Ross Avenue, Ste 1200
Dallas, TX 75202

Nicole Bealle
TNRCC Region 12
Industrial & Hazardous Waste Section
5425 Polk, Ste H
Houston, TX 77023-1423

elf atochem

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Elf Atochem North America, Inc.
18000 Crosby Eastgate Road
Crosby, Texas 77532

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1997 NATIONAL STAMP COLLECTING MONTH

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Jane Saginaw
Regional Administrator
United States Environmental Protection Agency
Region VI
1445 Ross Avenue, Ste 1200
Dallas, TX 75202

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